SOYBEAN OIL'S GLOBAL MARKET CHALLENGE

Oil, Paint and Drug Reporter

THE CHEMICAL MARKETING AUTHORITY

May 23, 1960

OPD SPECIAL
'DEPTH' REPORT
PAGE THREE

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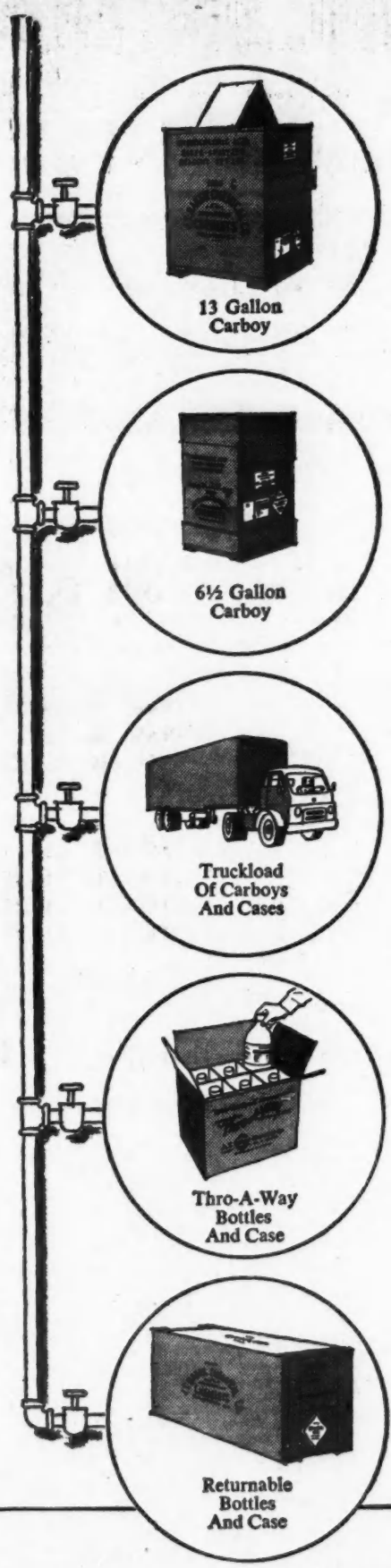

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Assay (as °)	99.8%	36.5-38.0%	69.0-71.0%	95.0-98.0%	28.0-30.0%
Residue After Evaporation or Ignition	0.0010%	0.0004%	0.0004%	0.0004%	0.001%
Carbon Dioxide (CO_2)	–	–	–	–	0.002%
Chloride (Cl)	0.0001%	–	0.00005%	0.00001%	0.00005%
Phosphate (PO_4)	–	–	–	–	0.0001%
Sulfate (SO_4)	0.0001%	0.0001%	0.0001%	–	–
Sulfite (SO_3)	–	0.0001%	–	–	–
Total Sulfur (as SO_4)	–	–	–	–	0.0001%
Substances Reducing Permanganate	**PACST	–	–	0.0001%	**PACST
Nitrate	–	–	–	<0.00005%	–
Ammonium (NH_4)	–	0.0003%	–	0.0001%	–
Arsenic (As)	–	0.000001%	0.000001%	0.000001%	–
Heavy Metals (as Pb)	0.00005%	0.0001%	0.00002%	0.0001%	0.00005%
Iron (Fe)	0.00002%	0.00001%	0.00002%	0.00002%	0.00001%
Copper (Cu)	0.00005%	0.00005%	0.00005%	0.00005%	–
Nickel (Ni)	0.00005%	0.00005%	0.00005%	0.00005%	–
Specific Gravity	–	1.185-1.192	1.416-1.424	1.84	0.902-0.896
Free Chlorine	–	0.00001%	–	–	–
Substances reducing $K_2Cr_2O_7$	PT	–	–	–	–

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Oil, Paint and Drug Reporter

Vol. 177 No. 22 30 Church St., New York 7, N. Y. May 23, 1960

SOYBEANS OVERSEAS FLOW

Foreign Shipments a Crucial Prop

Crop Year	Crop Total (Millions of Bushels)	Exports	Percent
1964-65*	600	200	33.3
1959-60*	538	188	34.9
1958-59	574	194	33.7
1957-58	484	159	32.8
1956-57	449	158	33.1

*Industry estimate. Other figures are from Department of Agriculture, minus 25 million bushels for seeding. Export figures refer to the actual bushels of beans sent abroad, plus the oil computed in terms of its bean equivalent.

Soybean Industry Is Scanning Future With Some Trepidation As Red China Looms Ominous

US soybean producers, who traditionally ship more than a third of their production overseas each year, look to the future with somewhat less than blatant optimism. Reason: This juicy export market could be snatched right out of their hands by Red China. In 1965, US output is expected to reach 600 million bushels. If the Communist Chinese horn in, it would mean loss of a 200-million-bushel market. Red China in the 1958-59 crop year turned out an estimated 400 million bushels of soybeans, primarily in Manchuria.

OPD 'Depth' Report

While US observers are very guarded in their comments, one forecaster privately told OPD last week that by 1965, Red China could lure away US export customers in Japan and a good deal of Europe.

Japan's Proximity a Factor

Feeling is strong that if Japan were unleashed to trade freely with Red China, within two years "they wouldn't buy a bean from us." It's much closer to ship from the Chinese mainland than from US west coast ports, and freight alone is a significant factor, it's pointed out.

In Europe, the Communist Chinese might have a little tougher time getting their feet in the doors of various consuming countries, but not to be ruled out is possible giveaway-type concessions on freight by the Soviet Union on the Trans-Siberian Railway.

Here's a breakdown of what might happen should the Red Chinese stage a world-wide soybean push:

In 1965, for example, US exports could reach a possible 200 million bushels of beans. Recently Japan has taken around 30 percent of the total, while Europe and the United Kingdom have accounted for about half.

Loss of the Japanese market to Red China by 1965 would mean a decline in exports of upwards of 60 million bushels of beans or, at the 1965 rate of yield, some 660 million pounds of oil.

Soybeans grown in China are reported to be of a slightly better quality than those grown in the US, because they are hand-picked. Coupled with this, say the economists, is the fact that price need

—Continued on page 9

SOY OIL PRICES

		High	Low
1960*	lb.	.0825	.06875
1959	lb.	.0975	.07625
1958	lb.	.11875	.09375
1957	lb.	.14375	.1125
1956	lb.	.1575	.1125
1955	lb.	.1275	.1050
1954	lb.	.15375	.11750
1953	lb.	.13875	.10
1952	lb.	.1325	.08875

*Five Months

Source: OPD's 1960 Hi-Lo Chemical Price Issue

Ammonium Sulfate Output Switch Called the Coaltar Industry's Ticket

Oversupply of cokeoven ammonium sulfate has become a perennial problem, but there's good news for the industry this week in an authoritative opinion that the problem is not insoluble, after all. In fact, says Chester S. Edwards, president of Nitrogen Products, Inc., New Brunswick, N.J., the industry can steal its opponents' thunder by switching to production of ammonia liquor, which is in short supply. But the coaltar people must act now, he stressed in a talk last week before the American Coke & Coal Chemicals Institute in Rye, N. Y.

That the situation is becoming critical, Mr. Edwards says, is evidenced by the latest Mines bureau figures showing stocks of cokeoven ammonium sulfate at some 150,000 tons on March 31, as against only 118,000 tons a year ago. This in spite of the steel strike, which had production at a standstill for four months.

Losing in Farm Chemical Field

Causing the present crisis is ammonium sulfate's steady loss of ground in the farm chemicals business to such comers as ammonium nitrate and synthetic ammonia liquors, he reports.

Some relief has been available in the export market the past couple of years, but that remedy is nearly exhausted. Additional ammonium sulfate facilities abroad are fast obviating the need for imports from the US, Mr. Edwards notes. And, besides, he adds: "Export sales of cokeoven sulfate at the present time do not even return to the producer his cost of sulfuric acid."

Clearly the answer must be found in the domestic market, and Mr. Edwards feels he's spotted it, together with some technical problems which need not discourage anyone.

For production of ammonia liquor is nothing new to the coaltar industry. Some few plants are still producing it, and back in the 1920's it was a standard coveoven operation.

"This was before synthetic anhydrous ammonia was produced successfully in the

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OLIN MARKETING DIRECTOR: Arthur T. Safford, named to the newly-created post of director of marketing by Olin Mathieson Chemical Corporation, New York.

Archer-Daniels Plans Big Chemical Facility

Archer-Daniels-Midland Company is all set to build a multi-million dollar chemical center near Peoria, Ill., and that means increased facilities for the production of nitrogen chemicals, plasticizers, esters, olefins and other intermediates.

John H. Daniels, president of the Minneapolis, Minn., concern, says he believes the new installation "will mark a significant expansion by ADM in the chemical field."

Without specifically naming them, Mr. Daniels said a number of new products have been developed by ADM and are

—Continued on page 41

FDA Lengthens Its List Of Exempt Food Additives

Food & Drug Administration last week proposed to extend the list of exemptions of the food additives law to another group of eighty-two spices, seasonings, essential oils and natural extractives on the ground that they are substances that are "generally recognized as safe."

The group is in addition to the list of about 150 items in this category which

—Continued on page 33

DuPont Producing Silicon Under License From IT&T

E. I. duPont de Nemours & Co. has started up a plant to manufacture silicon for electronic semi-conductors by a new process. Licensed from International Telephone & Telegraph Company and developed by duPont, the new process is based on the thermal decomposition of silane, a silicon hydride.

The facility is located at duPont's Newport plant near Wilmington, Del. It is the second producing unit for this grade of silicon. The first unit, located at Brevard, N. C., has just had its capacity doubled to 70,000 pounds a year.

Simultaneously, the company has begun marketing a new silicon product in the from of gold-doped silicon crystals used for manufacture of high-speed switch diodes.

Borden, US Rubber Partners in Chemicals

Borden Company and United States Rubber Company are teaming up to organize a new firm—Monochem, Inc.—which will produce acetylene and vinyl chloride monomer, using natural gas or low flash-point liquid fuel hydrocarbons as a starting point.

Present plans call for the construction of a $50 million complex of chemical plants for the conversion of hydrocarbons into more than a dozen chemical products. The partners plan to erect adjacent individually-owned units which will consume the new Monochem output for the making of other chemical products.

The Monochem plant, on which construction will start later this year, initially will have the capacity to produce more than 80 million pounds of acetylene and approximately 150 million pounds of vinyl

—Continued on page 43

FOOTE SALES MANAGER: William M. Rayner, elevated from director of purchasing to general sales manager by Foote Mineral Company, Philadelphia.

Chemical Future Blue Chip, Say Four Out of Five

Four out of five executives (to paraphrase the TV commercials) believe the future is all blue chip for the country's chemical interests. The fifth? He's worried about foreign competition.

That quick little survey comes out or two meetings held in New York last week: the National Federation of Financial Analysts Societies and the National Industrial Conference Board.

On the cheerful side, according to the speeches they presented, stand the following: Dr. Charles Allen Thomas, chairman of the board of Monsanto Chemical Company; Eugene N. Beesley, president of Eli Lilly & Co.; Dr. Robert W. Cairns, director of research for Hercules Powder Company, and Hans Stauffer, president of Stauffer Chemical Company.

The worried man: Israel Rogosin, president and board chairman of Beaunit Mills, Inc.

Dr. Thomas said his company especially likes the looks of the foreign picture. He made that apparent before the financial analysts when he declared:

"People ask us how confident we feel about the future of export sales with the maturing of the European Common Market, the 'Outer Seven,' as the other West European trade bloc is called, and similar blocs now forming in Latin America.

"Our feeling is that, while shipments of bulk chemicals may decrease, and while export sales may shrink as a percentage of our total sales, their dollar volume will not necessarily decrease.

"Movement of the more sophisticated groups of specialty chemicals is increasing. These require greater technical sales and service effort, but command higher profit margins."

Dr. Thomas issued some figures to prove his company's faith:

"Monsanto, which has been called the most international in chemicals of American chemical companies, has expanded

—Continued on page 40

Welch Advised to Quit or Else, So He Makes a Very Speedy Exit

Dr. Henry Welch, chief of the division of antibiotics of Food & Drug Administration, was given his choice last week: Quit his $17,500 government job or be fired. He chose to quit. Dr. Welch had been put on the spot by Secretary of Health, Education & Welfare Arthur S. Flemming, following disclosures to the Kefauver drug-price investigation committee that Dr. Welch had collected more than $260,766 from outside activities since 1953.

Dr. Donald Groves was immediately placed in Dr. Welch's post, to serve as acting head of the division until a final decision on a replacement can be reached.

The outside money that Dr. Welch had made—and which paved the way for his abrupt retirement—was derived from his associations with two firms in the medical publications field: MD Publications, Inc., and Medical Encyclopedia, Inc.

Also a Part Owner

In addition, the doctor holds a half-interest worth $26,376 in the latter firm.

Secretary Flemming said that Dr. Welch had "deliberately misled his superiors" by accepting compensation "far beyond what is the commonly-accepted concept of an honorarium for editorial services—particularly when his compensation was directly related to advertising revenues from pharmaceutical companies and sale of reprints to pharmaceutical companies."

Documents obtained by the Kefauver committee from the publishing houses showed payments ranging from $11,828 to $49,162 a year between 1953 and 1959 to Dr. Welch. They came from MD Publications for editorial work on the publications, *Antibiotics & Chemotherapy*, *Antibiotic Medicine & Clinical Therapy*, and MD (*Medical News*) Magazine.

The documents indicated an unwritten agreement with MD Publications that gave Dr. Welch fixed shares of the profits on reprints of articles bought largely by drug firms, on articles inserted after the magazine's deadlines and on advertisements placed in the publication by drug firms.

Dr. Welch had received approval from

—*Continued on page 51*

Holland Color Increases Output of Intermediates

Holland Color & Chemical Company has doubled production of lake red C-amine and increased the output of three other intermediates.

From its headquarters in Holland, Mich., the company reports that recently expanded facilities will permit commercial sale of lake red C-Amine. The other products being produced in increased volume are red 2B amine, para toluidine meta sulfonic acid and R salt.

Goodrich's Plastic: The Plumber's Helper

With introduction of polyvinyl dichloride, trade-named "Hi-Temp Geon," B. F. Goodrich Chemical Company is by-passing competitive plastics and shooting straight at a potential multi-million-pound market in the home construction field.

Capable of withstanding temperatures 60 degrees higher than conventional vinyls, the new material is a logical replacement for copper in household hot-water plumbing, the company says.

In strength, impact resistance and non-flammability, "Hi-Temp Geon" is on a par with copper. Its feature property—heat-resistance— is said to place it in a different class from plastics used in cold-water piping. Whereas conventional plastics buckle at less than 120 degrees fahrenheit, the new vinyl will withstand 200 degrees and has been demonstrated to hold up at 212 degrees.

In corrosion resistance, the material is once again the equal of copper—but in

—*Continued on page 37*

CSC Selling New Waxes Based on Nitroparaffins

Commercial Solvents Corporation is marketing a new series of synthetic waxes derived from nitroparaffins.

Two of the new waxes, which are known generically as ozaline waxes, are immediately available in commercial quantities. "TX-1" is described as a hard, high-melting, emulsifiable rosin-like material, light-brown in color and translucent in appearance. "TX-254" is characterized as hard, medium-melting, emulsifiable and cream-colored.

Flemming Offers Legislation To Tighten Pollution Curbs

Secretary of Health, Education & Welfare Arthur S. Flemming submitted draft legislation to congress last week to amend the water pollution control law. His proposal aims to provide more effective enforcement of restriction on discharge of industrial and municipal wastes in streams and coastal waters.

The bill would: Extend existing law for making grants to water pollution control agencies for an additional five years, permit several communities to combine in obtaining grants for joint sewage treatment facilities, and make all interstate navigable waters and coastal waters subject to federal abatement enforcement authority.

Secretary Flemming explained that the bill is being offered in place of the program congress passed early this year—but which was vetoed by the President—for increasing annual federal grants to $90 million for sewage treatment works.

The Week's Price Changes

Coconut Oil, Cottonseed Oil, Linseed Meal Advanced. Apricot Kernel Oil, Corn Oil, Mercuric Salts Reduced.

Prices Advanced

Coconut oil, crude, ¼c. to ½c. per lb. (p. 59).
Congo copal gum No. 3, 1c. per lb. (p. 57).
Copra, $2.50 per ton (p. 59).
Corn oil, crude, ¼c. per lb. (p. 59).
Refd., ½c. per lb. (p. 59).
Cottonseed meal, 1c. per ton (p. 59).
Cottonseed oil, crude, ¼c. per lb. (p. 59).
Refd., ½c. per lb. (p. 59).
Linseed meal, 50c. per ton (p. 59).
Peanut oil, crude, ¼c. per lb. (p. 59).
Refd., ¼c. per lb. (p. 59).
Soybean oil, crude, 3/20c. per lb. (p. 59).
Refd., 3/20c. per lb. (p. 59).
Tin, straits, 1c. per lb. (p. 36).
Salts, ½c. per lb. (p. 36).

Prices Reduced

Apricot kernel oil, 5c. per lb. (p. 55).
Calomel, NF, $1 per lb. (p. 49).
Corn oil, foots, 95%, ¼c. per lb. (p. 59).
Cottonseed oil, foots, ½c. per lb. (p. 59).
Mercuric chloride, NF, cryst., 95c. per lb. (p. 49). USP, gran., powd., $1 per lb. (p. 49).
Mercuric oxide, red, NF, $1.25 per lb. (p. 49). Tech., $1.25 per lb. (p. 49).
Mercuric oxide, yellow, NF, $1.25 per lb. (p. 49). Tech., $1.25 per lb. (p. 49).
White precipitate, USP, powd., $1.25 per lb. (p. 49).

OPD Price Index

THE OIL, PAINT AND DRUG REPORTER'S relative record of prices of chemicals and related materials is currently as folows:

(1926=1949 average)

May 20, 1960	May 13, 1960	May 22, 1959
110.29	110.95	110.43

Fertilizer: 10 Million Tons in '75

No less an authority than Tennessee Valley Authority predicts that US fertilizer consumption will hit a neat 10 million tons yearly by 1975, up from 6.5 million during the latest crop season. TVA says this after dusting off its crystal ball for "Fertilizer Trends," an official publication of the government agency. Leading the three major nutrients will be nitrogen, touching 4 million tons by 1975 as against 2.3 million now. Currently the material is neck and neck with phosphate for the title of top tonnage nutrient. The latter, says TVA, will climb only to 3.2 million tons by '75.

Tonnage of potash consumption, the agency adds, figures to rise from the present 1.9 million tons to 2.8 million during the fifteen-year period.

Liquid Grade the Liveliest

Liveliest item on the nitrogen scene, now and in the years to come, turns out to be the liquid grade—still relatively new but rapidly expanding. (See ammonium sulfate story on page 3 of this issue.)

By 1958, TVA reports, consumption of liquid nitrogen fertilizers for direct application had reached 1.25 million tons—either as anhydrous ammonia or as nitrogen solution.

"This increasing trend should continue," are the agency's words.

In the phosphate corner, the authority sees increasing use of high-analysis two-element combinations, such as ammonium phosphates and diammonium phosphates. As late as 1946, only about 50,000 tons of these materials were used in direct applications. By 1958 tonnage had laid hold of the 460,000-ton-mark.

Advantages offered by this group—high analysis, high water solubility, and chemican combination of nutrients—should push their use up substantially, according to the agency's technical people.

Through its well known test-demonstra-

—*Continued on page 66*

MILES SALES MANAGER: William J. Ferracone, ex-sales manager of its Takamine Laboratory, who has been made general sales manager of Miles Chemical Company, Elkhart, Ind.

Acme Resin Corp. Expands

Acme Resin Corporation, Chicago and Forest Park, Ill., has completed a major addition to its Chicago plant ,increasing manufacturing space some 40 percent. Benefiting from the addition will be production of diallyl phthalate molding compounds.

Rexall Subsidiary Acquires Darwin, Three Other Firms

Darwin Laboratories, Inc., and three associated companies have been acquired by Riker Laboratories, Inc., the ethical drug subsidiary of Rexall Drug & Chemical Company.

Nathan A. Wolfstein, sr., and Nathan A. Wolfstein, jr., who found Darwin Laboratories, Harvard Laboratories, Glanco Sales Company and Southern California Gland Company, will continue to be active in the management of these companies.

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GOODRICH-GULF VICE-PRESIDENT: David L. Matthews, appointed vice-president of manufacturing by Goodrich-Gulf Chemicals, Inc., Cleveland, Ohio.

Goodyear Abounce With New Synthetics

Goodyear Tire & Rubber Company has developed two new synthetic rubbers—an isoprene product called "Natsyn" and a butadiene material named "Budene"—and now the Akron, Ohio, company is going to build a multi-million dollar plant to produce them.

The new manufacturing facility will be erected near Beaumont, Tex., and will be in production in about one year.

To date, "Natsyn" and "Budene"—both of which are said to outperform natural rubber in many applications—have been produced in only limited quantities in pilot plants in Akron, Ohio. The Beaumont installation, says Goodyear, will be the company's first production operation engineered for commercial output.

"Natsyn" has a physical structure which duplicates the natural rubber molecule and can be used both as an extender and a replacement for the natural product. It has exceptionally high flex and heat resistance, says its maker.

"Budene" is an extender for natural rubber and has many outstanding applications, reports Goodyear, adding that both rubbers will be used in tires, industrial products such as conveyor belts and in other products requiring special properties.

Development of "Natsyn" was first announced by Goodyear five years ago and was heralded as a total replacement for natural rubber in the event supplies were cut off from overseas as they were in World War II. "Natsyn" was demonstrated successfully in heavy-duty truck tires and subsequently in high-speed jet

—*Continued on page 67*

National Distillers Obtains Control of Mallory-Sharon

National Distillers & Chemical Corporation, New York, has acquired a 60 percent interest in the common stock of Mallory-Sharon Metals Corporation formerly one-third owned by National Distillers.

Operations of Mallory-Sharon will be integrated with those of another National Distillers subsidiary, Johnston & Funk Metallurgical Corporation.

The combined operation, to be known as Reactive Metals, Inc., reportedly will be one of the world's largest producers of such special metals as zirconium, titanium, columbium, hafnium, molybdenum, tantalum, tungsten and vanadium mill products.

Color Additives Measure Seen Now Starting to Wriggle Its Way Out of Delaney's Strait Jacket

The house commerce committee is getting down to work in earnest this week on the color additives bill, preparatory to reporting the measure to the house for passage. The committee begins closed-door deliberations on the legislation—and optimism mounts that some modification will be voted in the outright ban now imposed on the use of cancer-producing compounds, as called for by the Delaney clause in the food additives law and proposed in the color bill.

Hopes of industry that it may receive some relief from the strait jacket imposed by the Delaney clause have been raised by the recommendations last week in the report of President Eisenhower's special assistant for science and technology, Dr. George B. Kistiakowsky. The scientist supported the views of industry all the way that some "rule of reason" can, and should be followed in administering the clause.

Helps Legislators Off the Hook

In the opinion of observers, the Kistiakowsky report enables the legislators to get off the hook of the Delaney clause and vote for its relaxation with assurances that they have substantial political and scientific support for taking this view. Industry would be satisfied if the Delaney clause was simply made one of the number of conditions that must be considered in clearing an additive for use in foods.

It was the view of the panel of experts that made a study of the whole problem of chemicals in foods—at the request of the White House and reported on by Dr. Kistiakowsky—that it is possible to use discretion in applying a policy of guarding the public against carcinogens in the food supply. This is the way the panel expressed itself on that point:

"From the experience obtained in animal experiments and study of humans who have been exposed to carcinogens in the course of their work, the panel believes that the probability of cancer induction from a particular carcinogen in minute doses may be eventually assessed by weighing scientific evidence as it becomes available."

As an aid to discretionary administration of the anti-cancer policy, the panel recommended the establishment by the Secretary of Health, Education & Welfare of an advisory board to assist in the evaluation of scientific evidence on the basis of which decisions have to be made pro-

—*Continued on page 39*

Upjohn Eyes Plant Disease, Veterinary Medicine Fields

Upjohn Company is looking into two new areas of growth: the plant disease field and veterinary medicine.

What's more, it also has its eye on oral contraceptives (it is working on a drug of its own) and a broader-gauge market for "Orinase," the Upjohn anti-diabetic preparation.

These growth targets were disclosed last week by Dr. E. Gifford Upjohn, president of the concern, to the New York Society of Security Analysts.

The Kalamazoo, Mich., pharmaceutical house already lays claim to being No. 1 in corticoids and ethical vitamin preparations, and Upjohn's "Cheracol" is reputed to be the largest-selling cough preparation.

According to Dr. Upjohn, the company's interest in the plant disease field stems from "Actidione." This antibiotic was first thought to have possibilities in the treatment of fungus infections in man, but now appears to be especially effective against such plant ailments as white pine blister rust.

HOOKER MARKETING DIRECTOR: William F. Christopher, who on June 1 will become director of marketing for Hooker Chemical Corporation, New York.

Sulfuric Plant Makes Its Bow in Pittsburgh

Pittsburgh Chemical Company has just put a new sulfuric acid plant on stream at Neville Island, Pittsburgh, Pa., boosting the company's capacity by 70 percent. This makes the output potential of the plant 72,000 tons per year.

Although Pittsburgh Chemical is a newcomer—a recently-formed subsidiary of Pittsburgh Coke & Chemical Company—the parent firm is an old-timer in the sulfuric acid business, having entered that field in 1941.

The company says it is one of just two merchant producers of sulfuric in the Tri-State area.

The new plant embodies the latest improvements in sulfuric acid plant design, says the producer.

The Neville Island location on the Ohio River allows the company to make use of

—*Continued on page 66*

Spencer-Coal Firm Merger Submitted to Stockholders

Acquisition of Pittsburg & Midway Coal Mining Company by Spencer Chemical Company has been approved by the boards of directors of both firms. The proposal will be submitted to stockholders for approval at meeting dates to be announced later.

Under the proposed merger, the Kansas City, Mo., chemical company would acquire all the assets of Pittsburg & Midway through an exchange of stock. Net assets of the coal company are estimated to be in excess of $20 million. It operates mines in five states.

Chemicals Lured By Large Market In Building Field

By 1969, the market for plastic wall panels could reach $285 million. Further, if plastic roof panels and surfacings are also included, this figure could be easily doubled. Translucent plastic ceilings would run the figure still higher—and this doesn't even include the residential market, largest of all.

This is what C. Theodore Larson, professor of architecture at the University of Michigan, told the twentieth anniversary meeting of Chemical Market Research Association in New York last week.

Discussing light-weight components in the construction industry, Prof. Larson also warned that however enticing light-weight components may be, a note of caution must be sounded.

A Note of Caution

"Nothing could give the chemical industry a blacker eye, one that might well last a long time, than for the plastics producers to rush pell-mell into the building market with wall panels and roof panels that won't be able to stand up against weather and climate or otherwise may fail to live up to expectations," he warned.

Melanie Kahane, of Melanie Kahane Associates, speaking on interior decoration, took up the same cudgel, this time with regard to synthetic fibers:

"Gentlemen," she admonished, "what I am trying to tell you—and I have been beating this drum for a long time, is this: Don't be so impatient to get these products out until you really know their limitations. In other words, don't make the consumer part of the experiment."

In keeping with the general theme of the meeting, "Construction Speaks to CMRA," Miss Kahane pointed out that the interior designer is of great importance to the market researcher in that the designer is in constant touch with, and is guiding, the ultimate consumer.

Nor did the cry for perfection end there. R. W. Finholt, manager of the chemical laboratory of the appliance division of General Electric Company, had this warning with regard to use of plastics:

"This is not a field for amateurs. We don't have centuries of experience that go into the making of things out of wood and steel. I find it disturbing that in most universities the study of polymers as

—*Continued on page 38*

Toluenesulfonic Acid Made By Chemetron a New Way

A new manufacturing method involving the exclusive use of glass-lined equipment is producing toluenesulfonic acid "of exceptional quality" at a Newport, Tenn., plant of the chemical products division of Chemetron Corporation, the division reports.

J. P. Haggerty, general manager in Newport, says the product is of light color and has an unusually low content of sulfones, hydrocarbons and sulfuric acid. It is marketed under the trade name "Crestwood Chemicals." The Philip J. LoBue Company, 277 Park avenue, New York, is sales agent.

Tennessee Products Set For a Big Output Rise

Tennessee Products & Chemical Corporation will soon put its production up one-third—all the result of an extensive expansion program now going on at its big installation in Chattanooga, Tenn.

The program, says the company, will effect a substantial increase in output of "Benzoflex" plasticizers, which are used in making a wide variety of vinyl plastic products.

Scheduled for completion early in 1961, the chemical expansion program entails both the installation of new equipment and the improvement of existing facilities. It is the second major expansion program undertaken at the Chattanooga facility in less than a year.

Aerosol Pharmaceuticals Target: $200 Million by '70

Aerosol target for 1970: $200 million yearly in sales of pressure-packaged drugs and pharmaceuticals.

Setting the target in view for the Chemical Specialties Manufacturers Association last week was Henry Holloway of Allied Chemical Corporation's General Chemical Division. He spoke at a session of the aerosol division at the association's midyear meeting in Chicago.

"Aerosol drugs and pharmaceuticals can either sell themselves at their present rate," he said, "or progressive marketing and promotion can help them to become a $200 million market or more within the next decade. The choice is up to all those with an interest in increasing profits."

There was good news for the aerosol makers in a report on CSMA's just-completed annual pressure products survey for 1959:

Aerosol production increased 22 percent over 1958, reaching an estimated total retail value of $750 million. Total number of non-food aerosol packages produced in the US and Canada was estimated at 575 million units.

In a survey conducted for CMRA's automotive division, antifreeze sales in 1959 were reported at 121.5 million gallons. Of the total, 108.3 million gallons, or 89.1 percent, were ethylene glycol (non-volatile) type products, and 13.2 million gallons, or 10.9 percent, were methanol (volatile) products.

Convening at the Drake hotel, the automotive group also learned that hydraulic brake fluid compounding reached a total of 11.8 million gallons last year.

In a technical paper presented before the aerosol group, Dr. Paul A. Sanders reported results proving that container corrosion in many non-aqueous aerosol products containing ethyl alcohol and propellent-11 (trichloromonofluoromethane) is due primarily to a reaction between the two chemicals. Previous theory had blamed the trouble on hydrolysis of the propellant. Dr. Sanders is with E. I. du-Pont de Nemours & Co.'s "Freon" products laboratory.

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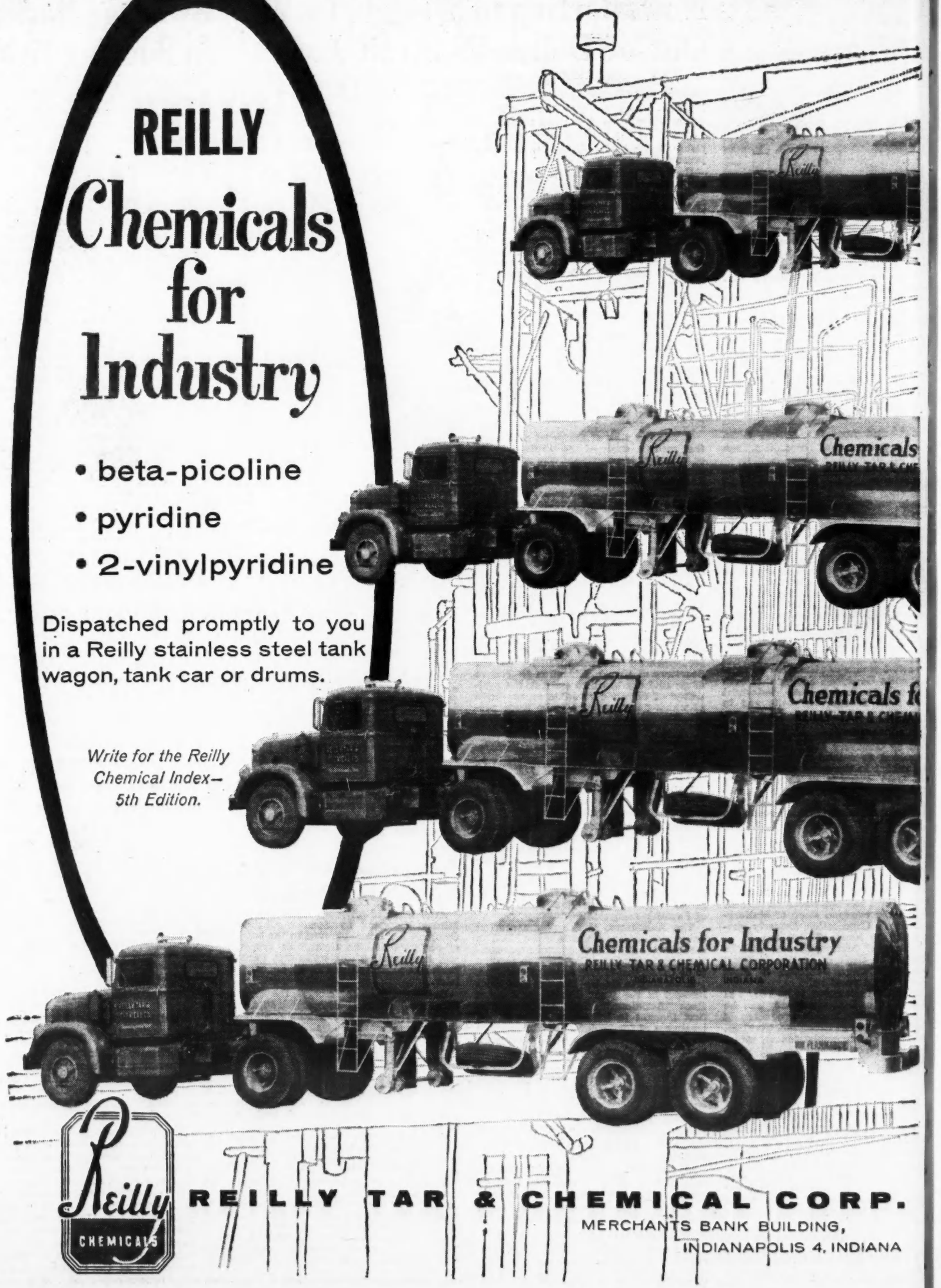

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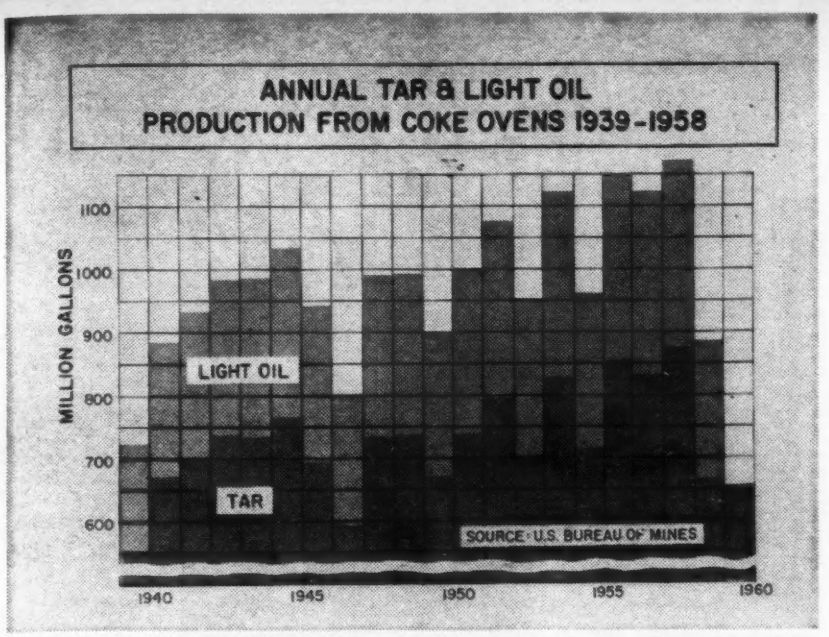

HOW BIG ARE COALTAR CHEMICALS?: A clue is provided in the chart (above) put together by C. K. Merrill Winne of Koppers Company, Pittsburgh, Pa. Among other things, it shows that US chemical recovery cokeovens turn out an average of 771 million gallons of crude tar annually. What can be done with this prolific chemical raw material is discussed by Mr. Winne in the story below.

Coal Chemicals Trade Has Three Keys That Should Unlock a Bright Future

Three keys point to a bright coal chemicals future: Improved products, new methods of analysis for better quality control, development of new polymers. If these keys fail to unlock a treasure chest of new markets, C. K. Merrill Winne and his Rye, N.Y., audience—the American Coke & Coal Chemicals Institute—will be very much surprised. Mr. Winne, technical director of chemicals at Koppers Company, Pittsburgh, Pa., advised the institute last week that the torrent of chemical raw materials unleashed by coking coal is still abuilding.

WITCO VICE-PRESIDENT: William J. Ashe, named administrative and financial vice-president of Witco Chemical Company, New York.

When the benzene squeeze is over, low-sulfur material available from the coke-oven industry will give the coaltar people a nice competitive edge over their petroleum counterparts, Mr. Winne indicates.

Naphthalene Answer on the Horizon

And low-sulfur naphthalene for certain phthalic operations lies on the horizon as an effective answer to petroleum naphthalene.

In the tar acid field, the industry is reportedly boasting new methods of analysis which are ready for use at the plant level. "As a result," says Mr. Winne, "we can exert better control than ever before over the products we ship to the resin and phosphate ester consumers."

These same control instruments, according to the Koppers executive, can be used in tar base operations, and, perhaps, he adds, even higher boiling compounds will prove susceptible.

That glow in coaltar laboratories, Mr. Winne indicates, is more than incandescent coal. It's a self-congratulatory flush at discovery of new types of cresol resins which will open up new markets in the ever-expanding plastics industry.

The industry's research arm is also hard at work on phenanthrene, carbazole, anthracene and fluorene. These four tar chemicals, capable of almost infinite modi-

—*Continued on page 44*

ACFA Convenes Sept. 15-16

Armed Forces Chemical Association will hold its fifteenth annual meeting at the Sheraton-Park hotel, Washington, D. C., September 15 and 16.

East German Chemicals Tied To the Soviet Union as Satellite Pushes New Expansion Plan

East Germany, now moving into the international spotlight once again, has long been a chemical as well as political enigma to the free world. The German monthly, Chemie-Ingenieur-Technik, *has just completed a penetrating study of East German chemical potential and here are its key findings:*

Dropping its five-year plan in mid-stream, East Germany is now embarked on a seven-year industrial program of massive proportions. Chemical highlights of the scheme, which will retroactively include 1959 and run through 1965, feature a doubling of real output by the target year and closer integration with Soviet Russia. The latter is being accomplished by assigning a high priority to the petrochemical industry and naming the USSR as sole supplier of the needed raw material—petroleum.

Growth rate of East German chemicals has been impressive enough, the record proves. In fact, the 1955-60 plan was dropped only to accommodate more ambitious goals. The following table compares expansion rates in the two German states:

East Germany vs. West Germany

	1959 Per-cent	1958 Per-cent	1957 Per-cent	1956 Per-cent
East Germany.....	12	11	8	6.2
West Germany.....	9	2.8	7.5	11.5

The industry's production in 1958 was valued at 8.8 billion East German marks, accounting for 15.6 percent of combined industrial production, and up four-fold since 1936.

To achieve 18.1 billion DM worth of production by 1965, the Communist regime is investing some 11 million marks in new plant and equipment, as against only 5 billion during the five-year plan. Investments during the current year will total 1.57 million marks.

Emphasis generally will be on modernization and expansion of existing facilities rather than creation of new producing units. A significant exception will be petrochemicals. The big boost in this line entails significant new construction.

Here is a look at the seven-year plan

—*Continued on page 33*

Synthetic Fiber Output Seen Riding High in Japan

Synthetic fiber production will reach some 230 million pounds this year in Japan, which already ranks second only to the US in man-made fiber output.

This prediction was voiced last week by Dr. Fujio Mashio, professor at Kyoto Technical University, Japan, in a lecture sponsored in New York by Fine Organics, Inc., and the Cooper Union for the Advancement of Science & Art.

After importing American techniques (notably duPont's nylon process) Japan, by dint of much effort, developed indigenous processes which have resulted in new fibers, such as "Vinylon," Dr. Mashio revealed.

The country's synthetic fiber production reached some 100 million pounds, or 9.5 percent of total world output in 1957, he noted.

CMRA'S NEW PRESIDENT: J. William Everson of Dow Chemical Company, Midland, Mich., who is the new president of the Chemical Market Research Association. (An account of CMRA's annual meeting in New York last week may be found on page 5.)

Chemicals for Reds: Area of Less Tension

In spite of increasing tensions between the United States and the Communist bloc, growing out of the U-2 spy plane incident, the US continues to ease up the restrictions on exports of products to the communist area that may have only a limited military value.

A list of some 250 categories, including a number in the chemical field, has been added to the items which previously could be exported to the USSR and its European satellites without the need for individual

—*Continued on page 41*

Urea Plant for Portugal Is Licensed by Montecatini

A 40,000-ton-a-year urea plant will be built by Uniao Fabril do Azoto of Portugal in that country at Labradio near the town of Barreiro. The Portuguese company has just been licensed by Montecatini of Italy to use the Fauser-Montecatini process for urea manufacture.

Association Meetings

Air Pollution Control Association, annual meeting, Netherland-Hilton hotel, Cincinnati, Ohio, May 22-26.

American Leather Chemists Association, annual meeting, Lake Placid Club, Lake Placid, N. Y., June 19-22.

American Pharmaceutical Association, annual meeting, Shoreham hotel, Washington, D. C., August 14-20.

American Society for Testing Materials, annual meeting, Chalfonte-Haddon Hall, Atlantic City, N. J., June 26-July 1.

Armed Forces Chemical Association, annual meeting, Sheraton-Park hotel, Washington, D. C., September 15-16.

Association of Consulting Chemists & Chemical Engineers, annual meeting, Shelburne hotel, New York, October 25.

Association of Food & Drug Officials, annual conference, Baker hotel, Dallas, Tex., June 5-9.

Canadian Agricultural Chemicals Association, annual meeting, Britannia hotel, Lake of Bays, Muskoka, Ontario, September 12-14.

Chemical Buyers' Group of the National Association of Purchasing Agents, annual meeting, Philharmonic Auditorium, Los Angeles, May 24.

Chemical Institute of Canada, annual conference and exhibition, Ottawa, Ont., June 13-15.

Chemical Market Research Association, annual fall business meeting, Pittsburgh Hilton hotel, Pittsburgh, Pa., November 9-10.

Drug, Chemical & Allied Trades Association, annual meeting, Sagamore hotel, Bolton Landing, Lake George, N Y., September 15-18.

Electrochemical Society, Shamrock hotel, Houston, Tex., October 9-13.

Federation of Societies for Paint Technology, annual meeting, Sherman hotel, Chicago, October 31-November 2.

Manufacturing Chemists' Association, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., June 9-11.

National Agricultural Chemicals Association, annual meeting, Del Coronado hotel, Coronado, Calif., September 27-29.

National Foreign Trade Council, national meeting, Waldorf-Astoria hotel, New York, November 14-16.

National Paint, Varnish & Lacquer Association, annual convention, Drake hotel, Chicago, October 27-29.

National Plant Food Institute, annual convention, Greenbrier hotel, White Sulphur Springs, W. Va., June 12-15.

Parenteral Drug Association, Edgewater Beach hotel, Chicago, June 24; annual convention, Statler hotel, New York, October 19-21.

Pharmaceutical Manufacturers Association, eastern regional meeting, Waldorf-Astoria hotel, New York, December 12-14.

Salesmen's Association of the American Chemical Industry, annual sales clinic, Roosevelt hotel, New York, November 14.

Society of Chemical Industry, annual meeting, Bristol, England, July 4-9.

Synthetic Organic Chemical Manufacturers Association, monthly luncheon meeting, Roosevelt hotel, New York, June 14.

Toilet Goods Association, annual meeting, Poland Spring House, Poland Spring, Maine, June 27-29; scientific section's winter meeting, Waldorf-Astoria hotel, New York, November 30.

Western Packaging & Materials Handling Exposition, Pan Pacific Auditorium, Los Angeles, July 15-21.

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Soybean Industry Scanning Future With Some Trepidation as Red China Looms

OPD 'Depth' Report on Soybean Oil

—*Continued from page 3*

not be an issue with the Communist producers. They're in a position to lower their prices to meet any competition.

A factor in favor of US producers is that soybeans grown in Communist China are subject to the whims of adverse climatic conditions. Hence, their supply could not always be guaranteed. The climate reportedly is lacking in moisture; in the spring there are often floods and in the fall, droughts.

Other factors offsetting the Red threat in soybeans are these:

Many of the countries that have been supplying Europe with small quantities of soybeans are gradually developing their own crushing industries and utilizing their beans domestically.

Europe Might Not Leave Fold

This trend is expected to grow—with populations growing and underdeveloped countries attempting to elevate their standards of living—so that by 1970, possibly as early as 1965, Europe will be forced to rely more on her most reliable exporter—the United States.

Whether these factors will balance each other and the United States will be shipping out one-third of its soybeans by 1965, is moot. There is one certainty: The bulk of the exports will be in the form of beans and not the oil and meal separately.

Reason is that countries need meal for their livestock and oil for their food products. Therefore, it is more profitable for them to import beans and crush them domestically.

This means that the American soybean grower may or may not suffer with increased competition from foreign exporters, but the American crusher will definitely witness little growth in the next few years.

Worsening the plight of the processor this year have been two key factors:

- Heavy stocks have forced the industry to slow to 75 percent of capacity.
- Crude soybean oil reached a twenty-five-year low in January, quoted at 6⅞ cents a pound, tankcars, f.o.b. mills.

Further, some plants that did not close down were reported to be losing money. One company man explained that one of his units could operate at a loss of $1,000 a day, but that it would cost $2,000 a day for the plant to close and stand idle.

Example of Economics

For example, he said a sixty-pound bushel of soybeans costs the processor $2.10; he crushes the beans and sells the forty-eight pounds of meal for $1.34 and the eleven pounds of oil for 85 cents. His gain is 9 cents per bushel—which won't cover the bare costs of operating the plant.

Based on this breakdown, some economists consider oil a byproduct, but the strongest view seems to be that oil and meal are joint or coproducts.

At any rate, with meal a more lucrative product, now that oil prices are so low, production is geared to demand for meal.

(One processor light-heartedly suggests that production is not geared to anything: "The US farmer grows soybeans because it is one of the best things he can do with his land. He goes on blindly planting beans, no matter what prices are. There's no stopping him, government price supports being what they are. And there's no reason to believe the government will alter its support program within the next few years.")

Demand for the meal, which makes a high-protein livestock feed, fluctuates with relation to such conditions as last year's drought in Europe, general livestock prices and prices of competing feeds.

But in recent years, demand has been increasing along with world production of livestock. This trend is expected to continue at an accelerated pace and so is demand for soybean meal.

SOY OIL OUTPUT

1964-65*	6.0 billion lbs.
1959-60*	4.5 billion lbs.
1958-59	4.3 billion lbs.
1957-58	3.8 billion lbs.
1956-57	3.4 billion lbs.
1955-56	3.1 billion lbs.
1954-55	2.7 billion lbs.
1953-54	2.4 billion lbs.

*Industry Estimate

Source: Department of Agriculture

SOYBEAN OIL: A FIFTEEN-YEAR PANORAMA

	1965	1959	1958	1950
Beans Crushed (Millions of Bushels)	429	405	370	210
Oil Yield per Bushel (Pounds)	11.0	10.7	10.7	9.9
Crude Oil Production (Millions of Pounds)	4,715	4,340	3,943	2,075
		(Millions of Pounds)		
Stock Increase:				
Crude & Refined	—	183	—128	5
Salad Oil (For Export)	—	35 (1)	—35 (1)	—
Exports	1,000	895	900	305
Domestic Disappearance Total	3,715	3,297	3,116	1,765
Foots & Refining Losses	140	135	140	90
Food Trades - Total (Refined Oil)	3,300	2,912	2,746	1,435
In Shortening (2)	1,250	1,185	1,095	885
(Percent of All Fats Used)	55%	52%	53%	50%
In Margarine	1,150	1,090	1,066	310
(Percent of All Fats Used)	80%	85%	84%	41%
As Liquid Oil - Total (Minus Exports)	925	640	585	240
Mayonnaise & Salad Dressing (3)	650	440	400	180
(Percent of Oils Used)	—	72%	70%	43%
Other Food (4)	300	200	185	60
Nonfood Trades - Total (5) (6)	275	250	250	240
Resins	—	68	43	45
Paint & Varnish	—	93	110	100
Linoleum & Other	—	89	92	95

(1) Trade estimate based on heavy January 1959 export of salad oil, mainly processed in preceding months.

(2) Census data adjusted upward to include "bulk" deliveries of unplasticized shortening not fully covered by Census; exports are included.

(3) Per annual census covering concerns manufacturing these products for sale.

(4) Residual, covering fish-packers, potato chips, miscellaneous fryers, caterers and institutions making their own mayonnaise, dressings etc.

(5) Trade estimate (Census total believed to be incomplete); processing reporting basis changed in 1959 so that the data for resins, paints, etc., are not comparable with earlier years.

(6) Mainly refined oil, but includes adout 35-40 million pounds of semi-refined oil.

But whatever the meal demand in 1965, the food uses for the oil, which account for at least 89 percent of total domestic consumption, are expected to grow at the rate of 2.4 percent per year.

This is a substantial growth, since population is calculated at some 1.75 percent per year.

Parenthetically, it is well to keep in mind that no matter how high the United States' standard of living climbs, or how popular dieting becomes, it is fairly certain that per capita consumption of fats and oils will remain about the same.

For example, the consumption in 1930 was 45 pounds per year; in 1950 it was 46.2 pounds and in 1958, it was 45.5 pounds.

Mayonnaise and Salad Dressing

The largest area of growth, within the food uses of soybean oil, is in the mayonnaise and salad dressing category. The increase here is expected to be 7.7 percent per year. These products, well-known to diet- and cholesterol-conscious persons, are expected to boom by 1965.

Note how rapidly soybean oil has taken over the dressings market since 1950. (These figures from the government refer to dressings as salad dressing, mayonnaise, sandwich spreads, French dressing and miscellaneous semi-solid and liquid types):

In 1950, 146 million gallons of cottonseed oil were consumed in dressings and in 1959 an estimated 140 million gallons were consumed. Corn oil was consumed at the rate of 73 million gallons in 1950 and by 1959 corn oil consumption was so small that it, along with miscellaneous other oils, was used only at the rate of 20 million gallons.

Soybean oil, however, rose from 165 million gallons in 1950, to an estimated 440 million gallons in 1959.

Beside these dressings, liquid salad oils, too, are expected to gain in the favor of the calorie counters, but soybean oil's propensity towards reversion, or just plain rancidity, has prohibited its use in them.

Some optimistic oil men believe that research, within the foreseeable future, will improve the flavor stability thereby making the oil suitable for more products, but this problem is as old as the commercial use of soybean oil and there is no particular reason to think it will be solved by 1965.

According to J. C. Cowan of the Northern Regional Research Laboratory in Peoria, Ill., linolenic acid is probably the major precursor of the undesirable flavors in heated soybean oil.

Studies on Linolenic Acid

With this knowledge, he and his staff have initiated studies on the hydrogenation of glyceryl and methyl esters of this precursor of flavors.

The Soybean Council of America recently pledged $50,000 to the Soybean Oil Research Conference, a new group whose function it is to stimulate research to improve the taste.

When and if the rancidity problem is solved, the whole food end-use chart perhaps will be rewritten. However, the solution is believed to be far off.

One curious whim: Even though Americans and most northern Europeans refuse to eat salad oil made with soybeans, some peoples of the world relish the soybean taste.

In Spain, for example, the people wouldn't think of using an oil that didn't taste harsh to our American standards. And they consider the typical American salad oils tasteless. Great olive oil fanciers, the Spanish housewives are particularly fond of a mixture of half soybean oil and half olive oil.

With this in mind, it is reasonable to assume that soybean people could "educate" the taste buds of the rest of the world to the point at which they would enjoy the taste of soybean oil. In fact, this, rather than research to improve the flavor stability, might prove more fruitful.

Other established domestic food uses, shortening and margarine, are not expected to witness any spectacular growth.

Shortening, for instance, is calculated to grow only at the rate of 1 percent per year until 1965 and margarine, only 1.2 percent. Assuming that the rate of growth of the US population will be 1.75 percent per year, these are indeed small increases.

The Future of Soybean Oil in England

In England, however, margarine may prove to be a big user of soybean oil in the future. The UK now uses quite a bit of coconut oil and palmkernel oil in its margarine. Not only are these oils thought better tasting, but there is also no duty to pay on them and they require virtually no hydrogenation due to their natural hardness.

In 1959, however, there was a drought in the Philippines, which usually supplies large quantities of coconut oil, and there was an increase in the consumption of soybean oil in margarine.

The 1959 jump in the use of soybean oil may have been solely because of the

—*Continued on page 44*

CHEMICALS AND RELATED MATERIALS

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Current MARKET Quotations

Unless otherwise indicated, listings are first-hand quotations prevailing, according to information and belief, May 20 on large lots, f.o.b. New York, with the lowest in the left-hand column and the highest in the right-hand column. The listings do not represent bid and asked prices nor a range over the week. Differences between high and low may be accounted for by differences in quantity, quality, locality, or individual suppliers' views. An index to the weekly market reports is to be found on page 4.

A

Abies siberica oil, cns. ..... lb. 1.90 - 2.40
Acacia (see Arabic gum).
Acetaldehyde 99%, dms., c.l., works. lb. .12 - —
dms., l.c.l., works ..... lb. .13½- —
tanks, works ..... lb. .10 - —
Acetaldol (see Aldol).
Acetanilide, tech., flaked, bbls., bgs., c.l., frt. alld lb. .32½- —
bbls., bgs., ton lots, frt. alld. lb. .33½- —
bbls., bgs., smaller lots, frt. alld lb. .36½- —
USP, bbls., 225-lb. dms., any quantity lb. .79 - —
100-lb. dms., any quantity lb. .81 - —
Acetic acid, coml., or redist., 28%, bbls. 100 lbs. 4.80 - —
56%, bbls. ..... 100 lbs. 8.25 - —
70%, bbls. ..... 100 lbs. 9.95 - —
80%, bbls. ..... 100 lbs. 10.45 - —
Acetic acid, glacial, syn., CP, dms., dlvd 100 lbs. 22.00 -23.00
tech., dms., c.l., dlvd 100 lbs. 13.75 - —
dms., l.c.l., dlvd ..... 100 lbs. 15.25 - —
tanks, dlvd. ..... 100 lbs. 10.00 - —
USP, cbys., dlvd ..... 100 lbs. 31.00 -32.00
Acetic anhydride, aluminum ret. dms., c.l., dlvd. E lb. .16½- —
aluminum ret. dms., l.c.l., dlvd. E. lb. .18 - —
tanks, dlvd. E ..... lb. .14 - —
Acetoacetanilide, fib. dms., c.l., dlvd lb. .80 - —
fib. dms., l.c.l., dlvd ..... lb. .81 - —
Acetoacet-o-chloroanilide, fib. dms., c.l., dlvd lb. 1.35 - —
fib. dms., l.c.l., dlvd ..... lb. 1.36 - —
Acetoacet-o-toluidide, fib. dms., c.l., dlvd lb. .82 - —
fib. dms., l.c.l, dlvd ..... lb. .83 - —
Acetone, CP, dms., c.l., dlvd.. lb. .11 - —
dms., l.c.l., dlvd..... lb. .12½- —
tanks, dlvd. ..... lb. .08½- —
Acetonitrile, dms., c.l., t.l., dlvd lb. .35 - —
dms., l.c.l., dlvd ..... lb. .36½- .37
tanks, dlvd. ..... lb. .32 - —
Acetophenetidin, USP, 200-lb. dms., 1,000 lbs., frt. alld lb. 1.22 - —
100-lb. dms., 1,000 lbs., frt. alld. lb. 1.24 - —
Acetophenone, cns., dms ..... lb. .42 - 1.30
Tech., dms., c.l., works ..... lb. .37 - —
dms., l.c.l., works ..... lb. .37¼- —
tanks, works ..... lb. .35 - —
N-Acetyl-p-aminophenol, dms., t.l. (min. 23,000 lbs.), frt. adjusted lb. 1.24 - —
dms., smaller lots, same basis lb. 1.35 - 1.63
dms., 5,000-lb. lots, same basis lb. 1.30 - 1.45
Acetylene black, imp., bgs., c.l., duty and freight extra lb. .19 - —
cs., l.c.l., ex whse ..... lb. .24½- .30
Acetylene tetrabromide, 16-dm. lots or more, f.o.b. works lb. .53 - —
Acetylsalicylic acid, USP, special, makers, primary distr., bbls., 1,000-lb. lots, point of shipt. lb. .63½- —
USP, standard, fine, cryst., gran., (20-40 mesh) powd., (80 mesh.) 250-lb. bbls., c.l., t.l., same basis lb. .55¼- —
Freight equald, shipt. identical quantity over standard routes, from N.Y., Phila., Midland, Mich., Chicago and St. Louis.
Acetyltributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .35½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .36½- —
tanks, frt. alld. E. of Denver. lb. .33 - —
non-ret. dms., c.l., frt. alld. E. of Denver lb. .39½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .40½- —
tanks, frt. alld. E. of Denver lb. .37 - —

ACIDS

Acid quotations are listed individually. For example, prices on Acid, cresylic, may be found in the C's under Cresylic acid.

Aconite root, bls. ..... lb. .50 - .55
Acrolein, tech., dms., c.l., works lb. .51 - —
dms., l.c.l. works ..... lb. .51¼- —
tanks, works ..... lb. .46 - —
Acrylamide, dms., t.l., f.o.b. works. lb. .53 - —
dms., l.t.l., same basis ..... lb. .60 - —
Acrylic acid, glacial, dms., c.l., t.l., frt. alld lb. .57 - —
dms., l.c.l., l.t.l., frt. alld... lb. .58 - —
Acrylonitrile, dms., c.l., t.l., frt. equald lb. .26 - —
dms., l.c.l., l.t.l., frt. alld..... lb. .27 - —
tanks, frt. equald..... lb. .23 - —

Abies Siberica Oil—Ammonium Bicarbonate

Adeps lanae (see lanolin).
Adipic acid, bgs., c.l., dlvd..... lb. .32¼- —
bgs., l.c.l., dlvd..... lb. .35 - —
Agar, USP, Kobe No. 1, strip, bls. lb. 2.40 - 2.50
powd., 30 mesh., fib., dms. lb. 2.40 - —
dl-Alanine, dms., 100-lbs. or more, f.o.b. works lb. 5.25 - —
dms., 1-99 lbs., same basis ... lb. 10.00 - —
Aldol, 95%, dms., l.c.l., works lb. .28 - —
Aldrin, tech., fib. dms., c.l., t.l. dlvd lb. .98 - —
fib. dms., l.c.l., dlvd..... lb. 1.04 - —

ALCOHOLS

Alcohol quotations are listed individually. For example, prices on Alcohol, furfuryl, may be found in the F's under Furfuryl alcohol.

Aletris root, bgs ..... lb. 1.50 - 1.75
Algin (see Sodium alginate)
Alizarin (see 1,2-Dihydroxy anthraquinone).
Alkali blue dry, 250-lb. bbls., dlvd. E. of Rockies lb. 2.38 - —
Alkali blue, toner, litho flushed, 125-lb. bbls., same basis, lb. 1.35 - —
Alkali blue prices 1c. higher W. of Rockies.
Allethrin, 90%, dms., frt. alld lb. 28.80 -28.90
Soln., 20%, dms., 200-2,000 lb. lots, frt. alld. lb. 6.50 - 6.55
2½% dms. frt. alld..... lb. .95 - 1.10
Allspice oil (see Pimento oil).
Allyl alcohol, dms., c.l. dlvd..... lb. .32½- —
dms., l.c.l., dlvd..... lb. .34 - —
tanks, dlvd. ..... lb. .30 - —
Allyl bromide 55-lb. cbys. 5,005 lbs. or more, works lb. 1.47 - —
55-lb. cbys., 1,045 to 4,950 lbs., works lb. 1.52 - —
55-lb. cbys., 55 to 990 lbs. works, lb. 1.57 - —
Allyl chloride, dms., c.l., dlvd .... lb. .17½- —
dms., l.c.l., dlvd..... lb. .19 - —
tanks, dlvd. ..... lb. .15 - —
Allyl isothiocyanate (see Mustard Oil, syn.).
Almond oil, artif., bitter (see Benzaldehyde)
Almond oil, nat., bitter, f.p.a., bots. lb. 2.75 - 3.45
NF, bots. ..... lb. 3.00 - 3.30
sweet, USP, cns., dms ..... lb. .70 - 1.30

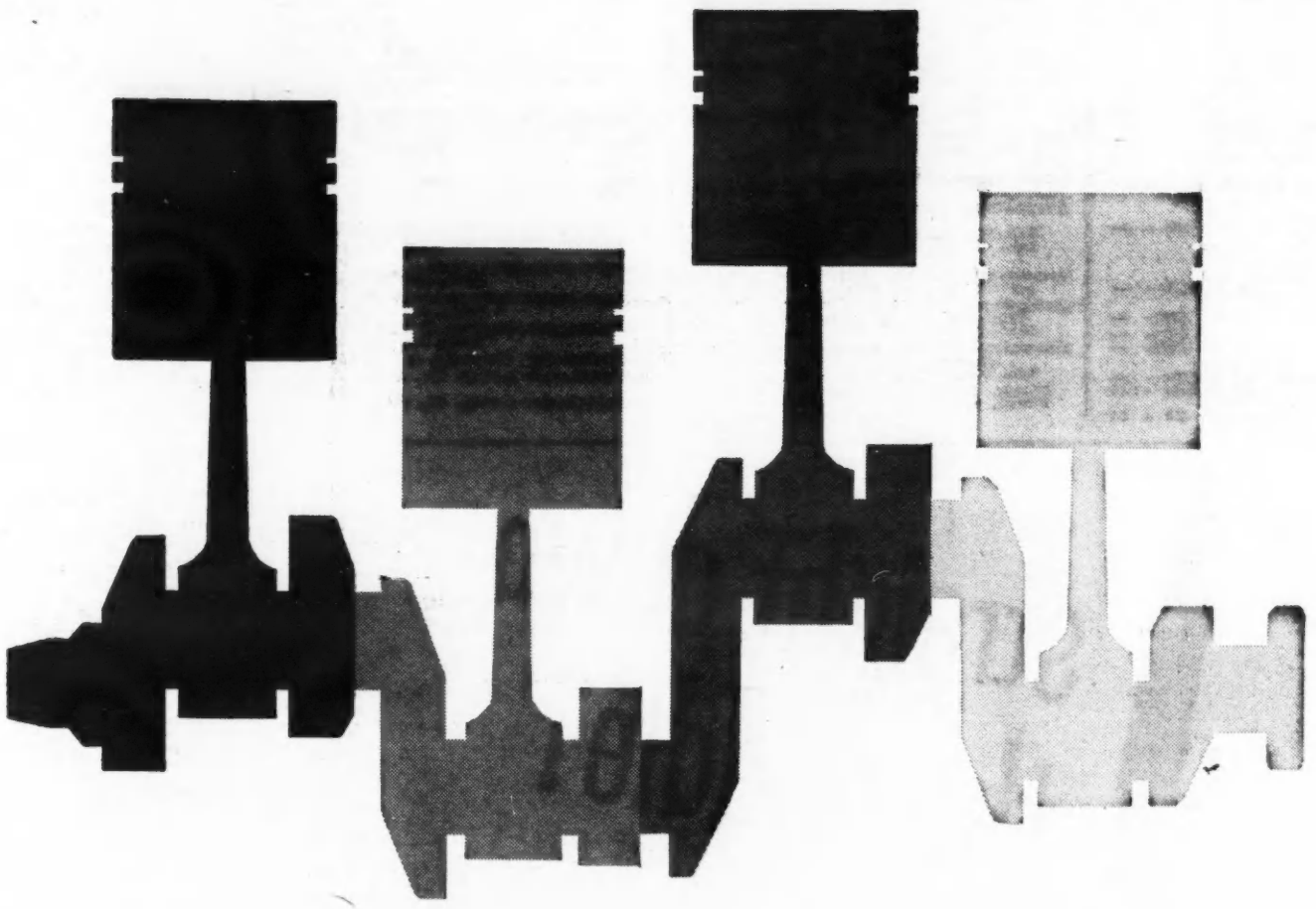
Abbreviations

Used in OPD Market Quotations

alld.	allowed	distr.	distributor	No.	number
amorph.	amorphous	djns.	demijohns	nom.	nominal
AMP	American melting point	dlvd.	delivered	o-	ortho
anhyd.	anhydrous	dms.	drums	ord.	ordinary
AOAC	Association of Official Agricultural Chemists	dom.	domestic	oz.	ounce
		E.	east	p-	para
		e.p.	end point	Pac.	Pacific
a.p.a.	available phosphoric acid	equald.	equalized	pf.	proof
		exp.	expressed	phos.	phosphate
approx.	approximately	Ext.	external	photo.	photographic
artif.	artificial	F.	fahrenheit	pkgs.	packages
ASTM	American Society for Testing Materials	ferment.	fermentation	powd.	powdered
		f.f.a.	free fatty acid	precip.	precipitated
		f.f.c.	free from chlorine	prod.	producer
Atl.	Atlantic	fib.	fiber	pt.	point
Be.	Baume	f.o.b.	free on board	pulv.	pulverized
bbls.	barrels	f.p.a.	free of prussic acid	purif.	purified
bgs.	bags	frt.	freight	redist.	redistilled
bls.	bales	gal.	gallon	refd.	refined
bots.	bottles	gran.	granular	refy.	refinery
b.p.	boiling point	grd.	ground	reg.	regular.
b.p.l.	bone phosphate of lime	i.&a.	iron and aluminum	resub.	resublimed
				ret.	returnable
b.r.	boiling range	i.b.p.	initial boiling point	SD	specially denatured
bxs.	boxes	imp.	imported	s.d.	single distilled
C.	centigrade	incl.	included	S E.	southeast
cbys.	carboys	indust.	industrial	sec.	secondary
CD	completely denatured	kgs.	kegs	secs.	seconds
		l-	laevo	s.g.	specific gravity
c.i.f.	cost, insurance, freight	lacq.	lacquer	shipt.	shipment
		lb.	pound	soln.	solution
cks.	casks	l.c.l.	less carlots	s.u.	standard unit
c.l.	carlots	l.t.l.	less truckload	syn.	synthetic
cns.	cans	liq.	liquid	tanks.	railroad tankcars
coml.	commercial	mfrs.	manufacturers	tech.	technical
conc.	concentrated	m-	meta	tert-	tertiary
CP	chemically pure	m.a.p.	mixed aniline point	t.l.	truckloads
cps.	centipoises	min.	minimum	t.w.	tankwagons
cryst.	crystalline	m.p.	melting point	USP	U. S. Pharmacopoeia
cs.	cases	N-	nitrogen		
ctns.	cartons	n-	normal	vis.	viscosity
cyls.	cylinders	nat.	natural	VM&P	varnish makers & painters
d-	dextro	neut.	neutral		
dbl.	double	NF	National Formulary	W.	west
denat.	denatured			whse.	warehouse
dest-dist.	destructively—distilled	NNR	New and Nonofficial Remedies	w.w.	water-white
dl-	dextro-laevo				
dist.	distilled				

A unit-ton is 2,000 pounds of 1 percent of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the price figure shown gives the price of 2,000 pounds of the material.

Aloe, Cape, cs. ..... lb. .30 - .33
powd., cs. ..... lb. .60 - .65
Curacao, kgs. ..... lb. .60 - .70
powd., kgs. ..... lb. .85 - —
Aloin, USP, bbls., dms., kgs.... lb. 3.25 - 3.75
Alphanaphthol (see a-Naphthol).
Alphanaphthylamine (see a-Naphthylamine).
Alphanitronaphthalene (see a-Nitronaphthalene).
Alphapicoline (see a-Picoline).
Alphaterpinol (see a-Terpinol).
Alphatocopherol (see a-Tocopherol).
Alum ammonium, gran., bgs., works. 100 lbs. 4.30 - —
Lump, dms., works..... 100 lbs. 5.05 - —
Powd., dms., works..... 100 lbs. 5.20 - —
USP, burnt., dms ..... lb. .20 - .21
hydrous, dms. ..... lb. .07¾- .08
Alum potassium, gran., bgs., works. 100 lbs. 4.55 - —
Lump, dms., works..... 100 lbs. 5.30 - —
Powd., dms., works..... 100 lbs. 5.45 - —
USP, burnt., dms ..... lb. .20 - .21
USP, hydrous, dms ..... lb. .07¾- .08
Alum, potash-chrome, dms ..... lb. .17 - —
Alumina, calcined, bgs., c.l., works. lb. .05¼- —
bgs., l.c.l., works ..... lb. .05½- .08¼
Aluminum acetate, basic soln., 24%, bbls., l.c.l, works lb. .14 - —
Aluminum chloride, coml., anhyd., dms., c.l., works, frt. equald lb. .16 - —
dms., l.c.l., works ..... lb. .16½- —
cryst., dms., c.l., works 100 lbs. 21.00 - —
dms., l.c.l., works ..... 100 lbs. 21.50 - —
Soln., 32° cbys., c.l., works.... lb. .0495- —
cbys., l.c.l., works..... lb. .0570- .1095
tanks, works ..... 100 lbs. 3.95 - —
NF, gran., dms., works..... lb. .31 - .32
Aluminum fluoride, tech., anhyd., bgs., c.l., works. lb. .16¼- —
bgs., l.c.l., works ..... lb. .17¼- .19¼
bulk, c.l., basis 80% ..... lb. .14½- —
Aluminum fluoride in fib. dms. 0.35c. per lb. higher.
Aluminum formate, basic soln., containers extra, c.l., works. 100 lbs. 11.00 - —
containers extra, l.c.l., works. 100 lbs. 11.50 - —
Aluminum hydrate, heavy, bgs., c.l., frt. equald lb. .0365- —
bgs., 20,000-40,000 lb. lots, same basis lb. .039 - —
bgs., 2,000-20,000 lb. lots, same basis lb. .049 - —
bulk, c.l., same basis ..... lb. .03¼- —
Aluminum hydroxide, dried, USP XV, fib. dms., works. lb. .82½- —
fib. dms., contract, works lb. .79½- —
Aluminum hydroxide, gel, pharmaceutical, 14-15% Al_2O_3, fib dms., works lb. .22 - —
9-9½% Al_2O_3, fib. dms., works. lb. .19 - —
fib. dms., contract, works lb. .18 - —
Aluminum hydroxide, tech., powd., (see Aluminum hydrate).
Aluminum metal, 99½% + 30-lb. ingots, 10,000-lb. lots, frt. al'd lb. .2810- —
50-lb. pigs, 10,000-lb. lots, frt alld. lb. .26 - —
Aluminum oxide, amorphous (see Alumina, calcined).
Aluminum paste, lining, extra-fine, dms. lb. .71 - —
Standard grade, dms ..... lb. .48½- —
Aluminum powder, lining, extra-fine, dms. lb. 1.13 - —
Standard grade, dms ..... lb. .83 - —
Aluminum paste and powder prices are f.o.b. shipping point. Add 1c. per lb. for 100-lb. dm., 1½c. per lb. for 50-lb. dm., 3c. per lb. for 10 lb. can and 5c. to 12c. per lb. for smaller containers. Deduct 1c. per lb. for single shipment of 400 to 1,499 lbs. 2c. for 1,500 to 4,999 lbs., 3c. for 5,000 to 29,999 lbs. and 4c. for 30,000 lbs. or more. Where destination is within the continental U. S., a deduction equivalent to the lowest available common carrier transportation rate will be made from seller's invoice on orders of 200 lbs. or more.
Aluminum resinate, precip., 3.4% Al, dms lb. .40¼- —
Aluminum stearate, dibasic, ctns., c.l. lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Monobasic, ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Tribasic, ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Aluminum sulfate, coml., grd., bgs. c.l., works, frt. equald ton. 41.00 - —
bulk, c.l., same basis ..... ton. 40.00 - —
lump, bgs., c.l., same basis ton. 44.00 - —
iron-free, bgs., c.l., works, frt. equald.. 100 lbs. 3.80 - —
bgs., l.c.l., works, frt. equald. 100 lbs. 4.30 - 8.30
USP, gran., 400-lb. dm., works. lb. .30 - —
USP, powd., dms., works..... lb. .27 - —
Aluminum sulfate prices $1 per ton higher in the South.
Aluminum trihydrate, heavy (see Aluminum hydrate, heavy).
Ambergris, gray, bots ..... oz. 6.50 -10.00
P-Aminoacetanilide, tech., paste, dms., frt. alld. lb. 1.57 - —
Aminoacetic acid, NF, bbls., frt. adjusted lb. 1.50 - 1.75
Aminoazotoluene base, bbls., 100% basis lb. 1.03 - 1.18
p-Aminobenzoic acid, tech., dry, dms., works lb. 1.72 - —
2-Amino-4-chlorophenol, tech., solid, dms., frt. alld lb. 8.10 - —
p-Aminodiphenylamine, tech., solid, dms., frt. alld lb. 3.00 - —
Aminoethyl ethanolamine, dms., c.l., dlvd lb. .475 - —
dms., l.c.l., dlvd ..... lb. .49 - —
tanks, dlvd. ..... lb. .45 - —
2-Amino-2-methyl-1-propanol, dms., c.l., frt. alld lb. .44 - —
dms., l.c.l., frt. alld..... lb. .45 - —
tanks, frt. alld. ..... lb. .42 - —
m-Aminophenol, dist., dms., ton lots. lb. 2.05 - —
dms., smaller lots. ..... lbs. 2.50 - —
p-Aminophenol, dms., frt. alld.. lb. 1.15 - —
Aminophylline, USP, 100-lb. dm., frt. alld lb. 3.25 - —
p-Aminosalicylic acid, dms., 100 lbs. or more, frt. adjusted lb. 3.40 - —
Ammonia, anhyd., fertilizer, tanks, works, frt. equald. E. of Rockies..ton. 88.00 - —
refrigeration, tanks, works, frt. equald. E. of Rockies..ton. 90.50 - —
Aqueous, 29.4%, tanks, works, anhyd. basis, E. of Rockies. ton. 91.00 - —
Ammoniacal liquor (see Ammonia, aqueous).
Ammoniac, sal., gray, bgs., c.l., works, frt. equald..100 lbs. 8.25 - —
bgs., l.c.l., same basis..100 lbs. 8.65 -12.65
Ammoniac, sal., white (see Ammonium chloride, tech.)
Ammonium acetate, purif., dms lb. .40 - —
Ammonium benzoate, USP, fib. dms. ton lots, works lb. 1.00 - —
fib dms. 1,000-lb. lots, works. lb. 1.05 - —
Ammonium biborate, gran., dms., c.l., works ..ton. 325 - —
dms., ton lots, ex whse. 100 lbs. 20.40 - —
dms., smaller lots, ex whse. 100 lbs. 21.15 - —
Ammonium bicarbonate, dom., dms., c.l., works..100 lbs. 7.00 - —
dms., l.c.l., works.....100 lbs. 9.00 - —



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Ammonium bichromate, dms., works lb. .42 - .43
Ammonium bifluoride, dms., dlvd lb. .2145- .2245
Ammonium bromide, NF, gran., dms., c.l., t.l., frt. equald lb. .44 - —
dms., l.c.l., same basis lb. .46 - —
Ammonium carbonate, USP, lump, dms., c.l lb. .15½- —
Ammonium chloride, white, tech., fine gran., bgs., c.l., works, 100 lbs. 5.75 - —
bgs., l.c.l., works 100 lbs. 7.75 - 8.20
USP, gran., 250-lb. dm lb. .17¼- —
Ammonium citrate, dibasic, 250-lb. dm, f.o.b. works lb. .77 - —
Ammonium dichromate (see Ammonium bichromate)
Ammonium fluoride (see Ammonium bifluoride)
Ammonium gluconate, tech., 200-lb. dm., f.o.b. works E lb. .45 - —
Ammonium hydroxide (see Ammonia aqeous).
Ammonium iodide, NF, 25-lb. jar, f.o.b. works lb. 4.26 - —
Ammonium lauryl sulfate, dms., c.l., frt. alld lb. .20½- —
dms., l.t.l., frt. alld lb .21½- —
tanks, frt. alld lb. .19½- —
Ammonium lignin sulfonate, bgs., c.l., works 100 lbs. 3.25 - —
bgs., l.c.l., works 100 lbs. 3.40 - 3.65
Ammonium lineleate, 80%, dms., works lb. .50 - .55
Ammonium molybdate, CP, cryst., 400- lb. dms., 15,000-lbs. works. lb. 1.22 - —
400-lb. dms., 2,000-lb. contracts, works lb. 1.23 - —
400-lb. dms., works lb. 1.24 - —
Ammonium nitrate, dom., fertilizer grade, 33.5% N, bgs., f.o.b. works ton.68.00 - —
with dolomite, 20.5% N, bgs., c.l., Hopewell, Va ton.48.00 - —
Imp., Canadian, 33.5% N, eastern, bgs., c.l., ship't point, frt. equald to $3 ton base price ton.68.00 - —
Ammonium oxalate, tech., fine gran., 250-lb. dm., f.o.b. works E lb. .28½- —
Tech., powd., 200-lb. dm., same basis lb. .28½- —
Ammonium pentaborate, gran., bgs., c.l., works ton.193.00 - —
bgs., ton lots, ex whse 100 lbs.14.23 - —
bgs., smaller lots, ex whse. 100 lbs.15.48 -17.48
Ammonium pentaborate powder $10 per ton higher in bags.
Ammonium persulfate, tech., dms., 10-ton lots or more, works lb. .18 - —
dms., smaller lots, works lb. .20 - .23
Ammonium phosphate, coml., bgs., c.l., works, frt. equald lb. .09¼- —
bgs., l.c.l., same basis lb. .10 - —
Dibasic, NF, V, bbls., dms lb. .46 - —
Dibasic, tech., bgs., c.l., works, frt. alld lb. .09¼- —
Ammonium silicofluoride, dms., works lb. .12¼- .13¼
Ammonium sulfamate, bgs., c.l., t.l., works lb. .19 - —
bgs., l.c.l., works lb. .20½- .27
Ammonium sulfate, standard granular, bulk, f.o.b. works, base price ton.32.00 - —
purif., c.l., 100-lb. bgs., f.o.b. works lb. .08½- —
Large granular, bulk, c.l., works. ton.35.00 - —
bgs., c.l., works ton.40.00 - —
Tech., bulk, c.l., t.l., works ton.52.00 - —
bgs., c.l., t.l., works ton.56.00 - —
bgs., l.c.l., l.t.l., works 100 lbs. 3.20 - 5.20
Ammonium sulfide, liq., 40-44%, tanks, frt. equald., 100% basis. ton.160.00 - —
Ammonium sulfocyanide, tech. (see Ammonium thiocyanate).
Ammonium thiocyanate, tech., cryst., dms., c.l., works lb. .20 - —
dms., l.c.l., works lb. .22 - .26
Tech, soln., 50%, tanks, frt. equaid., basis ammonium thiocyanate content lb. .17¼- —
Ammonium thioglycolate, coml., 55-gal. dms., ton lots, 100% basis lb. 1.15 - —
d-Amphetamine hydrochloride, monobasic, dms lb.17.50 -23.50
dl-Amphetamine hydrochloride, dibasic, dms lb. 4.50 - 6.00
d-Amphetamine phosphate, fib. dms., 100-lb. lots lb.15.00 - —
dl-Amphetamine phosphate, dms.lb. 4.20 - 5.60
d-Amphetamine sulfate, fib. dms. lb.15.00 -17.00
dl-Amphetamine sulfate, fib. dms., lb. 4.20 - 5.60

Amyl acetate, ex fusel oil, tech., dist., from 125° to 150°C., dms., c.l., frt. alld. E. of Rockies lb. .18½- .19
dms., l.c.l., same basis lb. .20 - .20½
tanks, same basis lb. .16 - .16½
Amyl acetate, ex pentane, reg., dms., c.l., dlvd lb. .19 - —
dms., l.c.l., dlvd. lb. .21½- —
tanks, dlvd. lb. .16½- —
tech., dms., c.l., dlvd. lb. .17 - —
dms., l.c.l., dlvd. lb. .18½- —
tanks, dlvd. lb. .14½- —
Amyl acetate, syn., exc process, dms., c.l., dlvd lb. .19 - —
dms., c.l., dlvd. lb. .20½- —
tanks, dlvd. lb. .16½- —
Amyl alcohol, ex fusel oil (see Fusel oil refd).
Amyl alcohol, ferment, refd., 128°-132°C., dms., l.c.l., dlvd lb. .43½- —
refd., ACS grade, dms., l.c.l., dlvd lb. .45½- —
ex pentane, mixed amyls, dms., c.l., frt. alld lb. .19 - —
dms., l.c.l., frt. alld lb. .20½- —
tanks, frt. alld. lb. .16½- —
primary, dms., c.l., frt. alld. lb. .19¾- .20¼
dms., l.c.l., frt. alld. lb. .21¼- .21¾
tanks, frt. alld. lb. .17¼- .17¾
Sec-synthetic, dms., c.l., works, frt. alld lb. .19 - —
dms., l.c.l., same basis lb. .20½- —
tanks, same basis lb. .17 - —
Tert-synthetic, dms., c.l., frt. alld. E lb. .17 - —
dms., l.c.l., frt. alld. E. lb. .18½- —
tanks, frt. alld. E. lb. .14½- —
Amyl alcohol, 1-pentanol (syn. normal), dms., c.l., works lb. .41½- —
dms., l.c.l., works lb. .43 - —
tanks, works lb. .39½- —
2-pentanol, dms., c.l., works lb. .65 - —
dms., l.c.l., works lb. .70 - —
tanks, works lb. .60 - —
Amyl n-butyrate, dms. lb. 1.00 - 1.25
Amyl cinnamic aldehyde, dms lb. 1.70 - 2.20
p-tert Amyl phenol, dms., c.l., works. lb. .26¾- —
dms., l.c.l., works lb. .27¾- —
Amyl salicylate, cns., dms. lb. .73 - 1.08
Amyris oil, dms. lb. 1.65 - 2.05
Anethole, tech., dms. lb. .92 - 1.00
USP, cns., dms. lb. 1.10 - 1.45
Angelica root, bs lb. .85 - .90
Angelica root oil, bots lb.120.00 -140.00
Angelica seed oil, bots lb.120.00 -130.00
Aniline dms., c.l., frt. alld lb. .20 - —
dms., l.c.l., frt. alld. lb. .21 - —
tanks, frt. alld. lb. .18 - —
Aniline oil (see Aniline).
Aniline salt, dms., c.l., t.l., 20,000 lbs. min., frt. alld lb. .33 - —
dms., l.c.l., same basis lb. .35 - —
Anise oil, USP, dms. lb. 1.75 - 3.00
Anise seed, Mexican, bgs. lb. .16 - —
Spanish, bgs. lb. .16½- —
Anisic aldehyde, dms lb. 1.50 - 2.20
o-Anisidine, dms., c.l., frt. alld lb. .80 - —
dms., l.c.l., same basis lb. .82 - —
tanks, same basis lb. .78 - —
p-Anisidine, dms., works lb. .97 - —
Anthracene, 90-95%, dms., c.l., t.l. f.o.b., works lb. .42½- —
dms., l.c.l., minimum shipment 1,000 lbs., same basis lb. .45 - —
Anthranilic acid, 99%, 150-lb. dms., dlvd lb. 1.15 - —
Anthraquinone, 99.5%, bbls., c.l., frt alld lb. .83 - —
bbls., l.c.l., same basis lb. .86 - —
Electrical grade, bbls., l.c.l., same basis lb. 1.10 - —
Antimony butter (see Antimony trichloride).
Antimony metal, bulk, c.l., mines. lb. .29 - —
cs., c.l., mines lb. .29½- —
Antimony oxide, bgs., c.l., frt. alld. lb. .26½- —
bgs., l.c.l., frt. alld. lb. .28 - —
Prices of antimony oxide are 2¢ higher west of the Rockies.
Antimony sulfide, approx. 65%, bgs. 10,000-lb. lots, dlvd lb. .23 - —
bgs., smaller lots, dlvd lb. .24 - .26
Antimony trichloride, anhyd., solid, pails, c.l., works lb. .41 - —
pails, l.c.l., works lb. .43 - —
Antimony-potassium tartrate, tech., powd., 250-lb., dm., f.o.b. works, E lb. .69½- —
USP, powd., 250-lb. dm., same basis lb. .74½- —
Apomorphine hydrochloride, USP, bots., 25-oz. lots oz.35.60 - —
Apricot kernel oil, USP, dms lb. .55 - .70
Arabic gum, amber sorts, 10 bgs. lb. .27 - —
USP, powd., bbls. lb. .31 - .34
Areca nuts, powd., bbls. lb. .13 - —
Arecoline hydrobromide, NF, bots., tins, 100 oz. or more oz. 4.00 - —
l-Arginine, free base, dms., 10-kilo lots or more kilo.90.00 - —
l-Arginine glutamate, dms., 10-kilo lots or more kilo.60.00 - —
l-Arginine monohydrochloride, dms., 10-kilo lots or more kilo.60.00 - —
Arnica flowers (true Montana), bls. lb. .75 - —
Aromatic petroleum solvents (see Solvent Naphtha, petroleum, aromatic).
Arsenic, crude (95%), bulk, c.l., works lb. .016 - —
bbls., c.l., works lb. .0.31 - —
Arsenic trioxide, NF, powd., dms., 300-lbs., f.o.b. works lb. .48 - —
Arsenic, white, powd., bbls., c.l., works lb. .04½- —
bbls., l.c.l., works lb. .06½- .07¼
Arsenous acid, tech. (see Arsenic, white).
Arsenous acid, USP (see Arsenic trioxide).
Arylid maroons, deep shades, bbls. lb. 3.70 - —
Light shades, bbls. lb. 2.85 - —
Asafetida gum, cns lb. .36 - .40
Powd., bbls., dms lb. .75 - .80
Asbestine (see Talc, fibrous, New York).
Asbestos, Canadian crude
6D, c.l. (30 tons), mines ton.86.00 - —
7D, c.l. (30 tons), mines ton.75.00 - —
7F, c.l. (30 tons), mines ton.71.00 - —
7H, c.l. (30 tons), mines ton.61.00 - —
7K, c.l. (30 tons), mines ton.50.00 - —
7M, c.l. (30 tons), mines ton.44.00 - —
7R, c.l. (30 tons), mines ton.43.00 - —
7RF, c.l. (30 tons), mines ton.44.00 - —
7T, c.l. (30 tons), mines ton.41.00 - —
7TF, c.l. (30 tons), mines ton.44.00 - —
Asbestos prices are in Canadian funds; l.c.l. lots $4 per ton higher.
Ascorbic acid, USP, dms., 100-kilos. kilo. 7.35 - —
dms., less than 100-kilos kilo.7.75 - —
Ash, black (see Barium sulfide).
Asphalt, gilsonite, black jet, bgs., c.l., mines ton.40.00 - —
ex-whse, N. Y., N. J. ton.86.50 - —
seconds, 300°-390°F. fusing pt., bgs., c.l., mines ton.35.00 - —
select, 350°F. fusing pt., bgs., c.l., mines ton.41.00 - —
270°-295°F. fusing pt., bgs., c.l., mines ton40.00 - —
Manjak No. 10 crude, dms., works. lb. .07 - —
Petroleum, cut-back, tanks, tankwagon, refy gal. .09½- —
emulsion, tanks, tankwagon, refy. gal. .09½- —
steam-refd., 50-80 penetration, tanks, tankwagon, refy. ton.21.00 - —
85-300 penetration, tanks, tankwagon, refy. ton.20.00 - —

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Aspirin (see Acetylsalicylic Acid).
Atropine, NF, tins ..... oz. 5.75 - 7.50
Atropine sulfate, USP, bots ..... oz. 5.25 - 5.75
Azelaic acid, bgs., c.l., dlvd. ..... lb. .40 - —
bgs., ton lots, same basis ..... lb. .41 - —

B

Bacitracin, bulk, 1,000,000,000 or more units, 50,000 units, less than 1,000,000,000 units, 50,000 units. .63 - — .70 - —
Balm of Gilead buds, dried, bgs. lb. 1.25 - 1.35
Barberry root bark, bgs ..... lb. 1.00 - 1.10
Barbital, NF, 100-lb. dms., f.o.b. works lb. 4.50 - —
Barbital sodium, NF, 100-lb. dms. lb. 4.75 - —
Barium carbonate, precip., bgs., c.l., works ton.111.50 - —
bgs., smaller lots, works ton.126.50 - —
Barium chlorate, dms., works lb. .32 - .41
Barium chloride, anhyd., bgs., c.l., works ton.176.00 - —
bgs., l.c.l., works ton.196.00 - —
NF, cryst., dms., 400-lbs., works lb. .23 - —
Tech., cryst., bgs., c.l., works, 100 lbs. 7.00 - —
bgs., l.c.l., works 100 lbs. 8.00 - —
Barium chromate, bgs., frt. equald. lb. .38 - —
Barium dioxide (see Barium peroxide).
Barium hydrate, cryst., bgs., c.l., t.l., frt. equald ton.208.00 - —
bgs., l.c.l., t.l., frt. equald ton.218.00 - —
Barium monohydrate, 99%, bgs., c.l., frt. equald 100 lbs.11.25 - —
bgs., l.c.l., frt. equald 100 lbs.11.75 - —
Barium monoxide (see Barium oxide).
Barium nitrate, bbls., c.l., t.l., dlvd. lb. .16 - —
bbls., l.c.l., l.t.l., dlvd. ..... lb. .17 - —
Barium oxide, grd., dms., c.l., t.l., frt equald ton275.00 - —
dms., l.c.l., l.t.l., frt. equald ton.285.00 - —
Barium peroxide, dms., frt. equald, lb .20 - —
Barium stearate, ctns., c.l., frt., alld. lb. .41 - —
ctns., l.c.l. same basis ..... lb. .42 - .46
Barium sulfate, tech. (see Barytes and blanc fixe).
Barium sulfate, X-ray, 100-lb. dm. lb. .19½ - —
Barium sulfide, dms., c.l., works, ton.100.00 - —
dms., l.c.l., works ..... ton.110.00 - —
Barytes, southern, off-color, bgs., mines ton.25.00 - —
95-75%, bgs., mines ton.25.00 - —
white, water-grd., paper bgs., c.l., St. Louis ton.55.00 -55.25
paper bgs., ex whse., New York ton79.85 - —
Battery acid, cbys., c.l., works E. 100 lbs. 2.35 - —
cbys, l.c.l., works, E ..... 100 lbs. 2.65 -10.95
Bauxite, bulk, mines ..... ton. 7.00 -10.00
Bay oil, NF, Puerto Rican, 50-55%, cns. lb. 2.40 - 2.70
55-60%, cns. ..... lb. 2.50 - 3.05
NF, West Indian, 50-55%, cns., dms. lb. 2.35 - —
Bayberry wax, bgs ..... lb. .45 - .50
Beeswax, crude, African, bgs. ..... lb. .50 - .52
Brazilian, bgs. ..... lb. .55 - .56
Central American, bgs ..... lb. .53 - —
Chilean, bgs. ..... lb. .56 - —
Refd., USP, bleached white, bricks, 100-lb. ctns. lb. .69 - .71
white, slabs, 100-lb. ctns. ..... lb. .68 - .70
yellow, bricks, 100-lb. ctns. lb. .59 - .61
yellow, slabs, 100-lb. ctns. lb. .58 - .60
Belladonna leaf, bls. ..... lb. .24 - .26
Belladonna root, bls. ..... lb. .28 - .35
Bentonite, dom, 200 mesh, bgs., c.l., mines ton.14.00 - —
Imp. Italian, white, high gel., bgs., 5-ton lots, ex whse. ton.95.20 - —
bgs., 1-ton lots, ex whse. ton.99.00 - —
Imp. Italian, white, low gel., bgs., 5-ton lots, ex whse. ton.93.40 - —
bgs., 1-ton lots, ex whse. ton.97.16 - —
Benzal chloride, cbys., works lb. .44 - —
Benzaldehyde, NF, dms. ..... lb. .80 - 1.05
Tech., dms., c.l., t.l. ..... lb. .47 - —
dms., l.c.l. ..... lb. .48 - —
Benzene, coaltar, pure or nitration, tanks, works:
Bethlehem, Pa ..... gal. .34 - —
Birmingham district .. gal. .34 - —
Chicago district ..... gal. .34 - —
Cleveland district .... gal. .34 - —
Geneva, Utah ..... gal. .34 - —
Johnstown, Pa. ..... gal. .34 - —
Lackawanna, N. Y. .. gal. .34 - —
Lone Star, Tex. ..... gal. .34 - —
Lorain, Ohio ..... gal. .34 - —
Middletown, Ohio ..... gal. .34 - —
Mennequa, Colo. .... gal. .34 - —
Philadelphia district .. gal. .34 - —
Pittsburgh district ... gal. .34 - —
Sparrows Point, Md. .. gal. .34 - —
Syracuse, N. Y. ..... gla. .34 - —
Terre Haute, Ind ..... gal. .34 - —
Youngstown, Ohio .... gal. .34 - —
Benzene, petroleum, nitration or industrial, Houston, Tex., tanks, gal. .34 - .40
Benzene hexachloride, 25% and 99% gamma isomer (see Lindane).
Benzene hexachloride, tech., high gamma, bgs., c.l., t.l., consignment, dlvd. gamma-unit. .0075- —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit. .0065- —
Tech., low gamma, bgs., c.l., t.l., consignment, dlvd. gamma-unit. .0075- —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit. .0056- —
Benzidine hydrochloride, bbls., c.l., frt. alld., 100% basis lb. 1.19 - —
bbls., l.c.l., same basis ..... lb. 1.21 - —
Benzidine sulfate, tech., bbls., frt. alld., 100% basis lb. 1.21 - —
Benzidine yellow, AAA, bbls., dlvd. lb. 2.20 - —
AAOT, bbls., dlvd. ..... lb. 2.55 - —
Lightfast, bbls., dlvd. ..... lb. 3.40 - —
Benzocaine, dms., 100-lbs., frt. alld. lb. 3.25 - —
Benzoic acid, tech., bbls., dms., c.l., t.l., frt., alld lb. .37 - —
bbls., dms., ton lots, same basis lb. .41 - —
bbls., dms., 1,000-lb lots, same basis lb. .43 - —
USP, bbls., dms., ton lots lb. .48 - —
bbls., dms., 1,000-lb lots lb. .50 - —

BENZOL
Benzol quotations, both coaltar and petroleum, may be found under Benzene.

Benzoin gum, Sumatra, cs. ..... lb. .32 - —
Benzophenone, dms. ..... lb. 1.40 - 1.65
Benzotriazole, tech., dms., 1,000-lb. lots, works lb. 2.25 - —
Benzotrichloride, cbys., 1,000-lb. lots or more, frt. equald lb. .21 - —
cbys., smaller lots, frt. equald lb. .23 - —
Benzoyl chloride, cbys., dms., c.l., works, frt. equald lb. .22 - —
cbys., l.c.l., same basis ..... lb. .23 - —
tanktrucks, dlvd. Metropolitan area lb. .21 - —
Benzoyl peroxide, purif., fib. dms., 50 to 1,000-lb lots, works lb. .98 - 1.08

Benzyl acetate, f.f.e., cns., dms. lb. .58 - .70
Benzyl alcohol, NF, dms. ..... lb. .58 - .80
Tech., dms., dlvd. ..... lb. .47½- .65
Benzyl benzoate, USP, 40-lb. dms lb. .62 - 1.00
Benzyl chloride, tech., cbys., dms., c.l., works, frt. equald lb. .22½- .25½
cbys., dms., l.c.l., same basis lb. .23½- .25½
tanktrucks, dlvd. Metropolitan area lb. .21 - —
A 2½c. differential is quoted on benzyl chloride in 5-gal. cbys. In steel dms. prices are ½c. lower.
Benzyl cinnamate, cns. ..... lb. 3.30 - 3.60
N-Benzyl-N,N-dimethylamine, 50 dms., frt. alld lb. 1.25 - —
12-49 dms., same basis ..... lb. 1.35 - —
1-11 dms., same basis ..... lb. 1.90 - —
Benzyl formate, cns. ..... lb. 1.85 - 2.10
Benzyl isoeugenol, cns ..... lb. 9.25 - —
Benzyl propionate, bots. ..... lb. 1.35 - 1.65
Benzyl salicylate, bots ..... lb. 1.50 - 1.85
Benzylidine acetone, bots. ..... lb. 1.75 - 1.80
Benzylidine chloride (see Benzal chloride).
Berberine bisulfate, cns ..... lb. 56.50 - —
Berberine hydrochloride, bots .... lb. 56.50 - —
Bergamot oil, nat., NF, Italian, cns. lb. 11.00 -12.00
Betagammapicoline (see b.g-Picoline).
Betahydroxynaphthoic acid (see b-Oxynaphthoic acid).
Betaoxynaphthoic acid (see b-Oxynaphthoic acid).
Betamethylnaphthalene (see Methylnaphthalene).
Betanaphthol (see b-Naphthol).
Betanaphthylamine (see b-Naphtholamine).
Betaphenylethylamine (see b-Phenylethylamine).

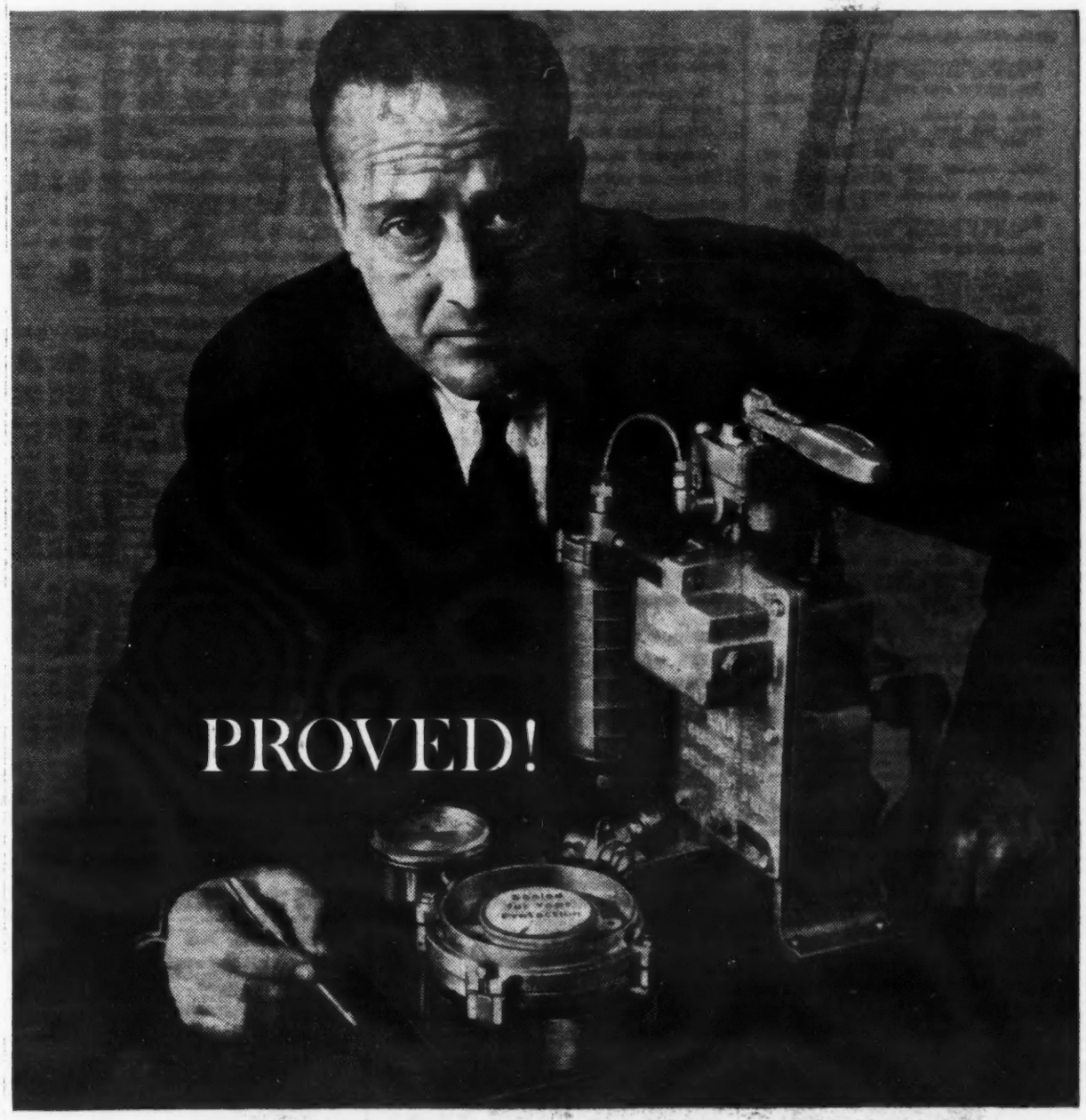
BHC (see Benzene hexachloride, tech.).
Biotin, cryst., bots ..... gram.10.00 - —
Biphenyl (see Diphenyl).
Birchtar oil, crude, cns ..... lb. 1.50 - 1.90
Rectified, cns. ..... lb. 1.75 - 2.00
Bismuth chloride, jars ..... lb. 5.11 - —
Bismuth hydroxide, dms ..... lb. 4.60 - 4.65
Bismuth metal, bxs., ton lots .... lb. 2.25 - —
Bismuth nitrate, cryst., 250-lb. dm. lb. 2.25 - —
Bismuth oxychloride, 25-lb. dm., f.o.b. works lb. 4.42 - —
Bismuth subcarbonate, USP, 150-lb. dm lb. 3.70 - —
Bismuth subgallate, NF, 200-lb. dm., f.o.b. works lb. 4.43 - —
Bismuth subiodide, fib dms .... lb. 5.37 - —
Bismuth subnitrate, NF, 200-lb. dm., f.o.b. works lb. 3.15 - —
Bismuth subsalicylate, USP, 100-lb. dm., f.o.b. works lb. 4.23 - —
Bismuth trioxide, 100-lb. dms., f.o.b. works lb. 4.40 - —
Bismuth-ammonium citrate, USP, powd., jars lb. 4.22 - —
Bisphenol-A, bgs., c.l., t.l., single shipt., 70,000-lbs. or more, frt. alld lb. .29½- —
bgs., c.l., t.l., less than 70,000 lbs., same basis lb. .30 - —
bgs., l.c.l., same basis ..... lb. .31 - —
Blackberry root bark, bls ..... lb. .50 - .55

BLACK PIGMENTS
Black pigment quotations are listed individually. For example, prices on Black, acetylene, may be found in the A's under Acetylene black.

Blanc fixe, direct process, bgs., c.l., works ton.145.00 - —
bgs., l.c.l., works ..... ton.155.00 - —
bgs., l.c.l., New York whse ton.195.00 - —
Blood, dried, 16-16½% ammonia, bgs., New York unit-ton. 5.50 - —
Bloodroot, bls. ..... lb. .90 - 1.00

BLUE PIGMENTS
Blue pigment quotations are listed individually. For example, prices on Blue, ultramarine, may be found in the U's under Ultramarine blue.

Blue dyes (see Dyes).
Blue vitriol (see Copper sulfate).
Bois de rose oil, Brazilian, dms lb. 1.20 - 2.85
Peruvian, dms. ..... lb. 1.85 - 2.00
BON acid maroons, pure, bbls lb. 1.75 - —
Resinated, bbls. ..... lb. 1.50 - —
Bone black, dms., l.c.l., frt. alld lb. .2275- .2425
c.l., works ..... lb. .2075- .2225
Pacific coast bone black prices 2c. per lb. higher.
Bonemeal, steamed, works, E. ton.80.00 - —



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Bone phosphate, defluorinated 67 lime (see Defluorinated phosphate).
Bone phosphate, precip. (see Calcium phosphate, tribasic).
Borax, tech., anhyd., 99½%, bgs., c.l., works ton.92.00 - —
bgs., ton lots, ex whse. New York or Chicago 100 lbs. 7.42 - —
bgs., smaller lots, same basis 100 lbs. 8.67 -10.67
bulk, c.l., works ton.83.00 - —
gran., decahydrate, 99½%, bgs., c.l., works ton.50.00 - —
bgs., ton lots, ex whse. New York or Chicago 100 lbs. 5.32 - —
bgs., smaller lots, same basis. 100 lbs. 6.57 6.57
bulk, c.l., works ton.43.50 - —
gran., pentahydrate, 99½%, bgs., c.l., works ton.64.50 - —
bgs., ton lots, ex whse. New York or Chicago 100 lbs. 6.05 - —
bgs., smaller lots, same basis 100 lbs. 7.30 - 9.30
bulk, c.l., works ton.56.00 - —
USP, powd., bgs., c.l., works. ton.54.00 - —
bgs., ton lots, ex whse. New York or Chicago 100 lbs. 6.45 - —
bgs., smaller lots, same basis. 100 lbs. 7.70 - 9.70
Bordeaux powder, tribasic, bgs., c.l., dlvd lb. .24 - —
bgs., l.c.l., same basis lb. .26 - —
Boric acid, tech., anhyd., 99.9%, bgs., c.l., works ton.335.00 - —
bgs., ton lots, ex whse. New York or Chicago 100 lbs.19.62 - —
bgs., smaller lots, same basis. 100 lbs.20.87 -22.87
cryst., 99.5%, bgs., c.l., works. ton.163.50 - —
bgs., ton lots, ex whse. New York or Chicago 100 lbs.11.05 - —
bgs., smaller lots, same basis. 100 lbs.12.30 -14.30
dms., c.l., works ton.188.50 - —
dms., ton lots, ex whse., New York or Chicago. 100 lbs.12.30 - —
bgs., smaller lots, same basis 100 lbs.13.05 - —
gran., 99.9%, bgs., c.l., works. ton.112.00 - —
bgs., ton lots, ex whse. New York or Chicago 100 lbs. 8.47 - —
bgs., smaller lots, same basis. ton.174.25 - —
dms., c.l., works ton.137.00 - —
dms., ton lots, ex whse. New York or Chicago 100 lbs. 9.72 - —
dms., smaller lots, same basis 100 lbs.10.47 - —
bulk, c.l., works ton.106.00 - —
powd., bgs., ton lots, ex whse., New York or Chicago. 100 lbs. 8.85 - —
bgs., smaller lots, same basis 100 lbs.10.10 -12.10
Boric acid, powd., dms., smaller lots, same basis 100 lbs.11.45 - —
USP boric acid $25 per ton higher in bags.
Borneol, cns. lb. 2.75 - —
Boron trichloride, CP, 1,800-lb. cyls., works lb. 1.25 - —
100-lb. cyls., works lb. 1.70 - —
Boron trifluoride, gas, cyls., t.l., works lb. .70 - —
cyls., l.t.l., works lb. .70 - —
Brimstone (see Sulfur).
Broenner's acid, bbls lb. 1.53 - —
Bromine, purif., cs., c.l., t.l., dlvd. E of Rockies lb. .32 - —
cs., l.c.l., same basis lb. .34 - .39
ret. dms., c.l., t.l., dlvd. E. of Rockies lb. .31 - —
ret. dms., l.c.l., same basis lb. .31 - .34
tanks, same basis lb. .21½ - —
Bromochloromethane, dms., c.l., frt. equald lb. .48 - —
dms., l.c.l., same basis lb. .50 - —
tanks, same basis lb. .47 - —
Bromoform, pharmaceutical grade, 100-lb. cbys lb 1.80 - 1.90
Bromstyrol, bots. lb. 5.25 5.70
Brucine, cns oz. Nominal.
Brucine sulfate, NF, cns. 1.45 - 1.75
Buchu leaves, bbls. lb. .70 - .75

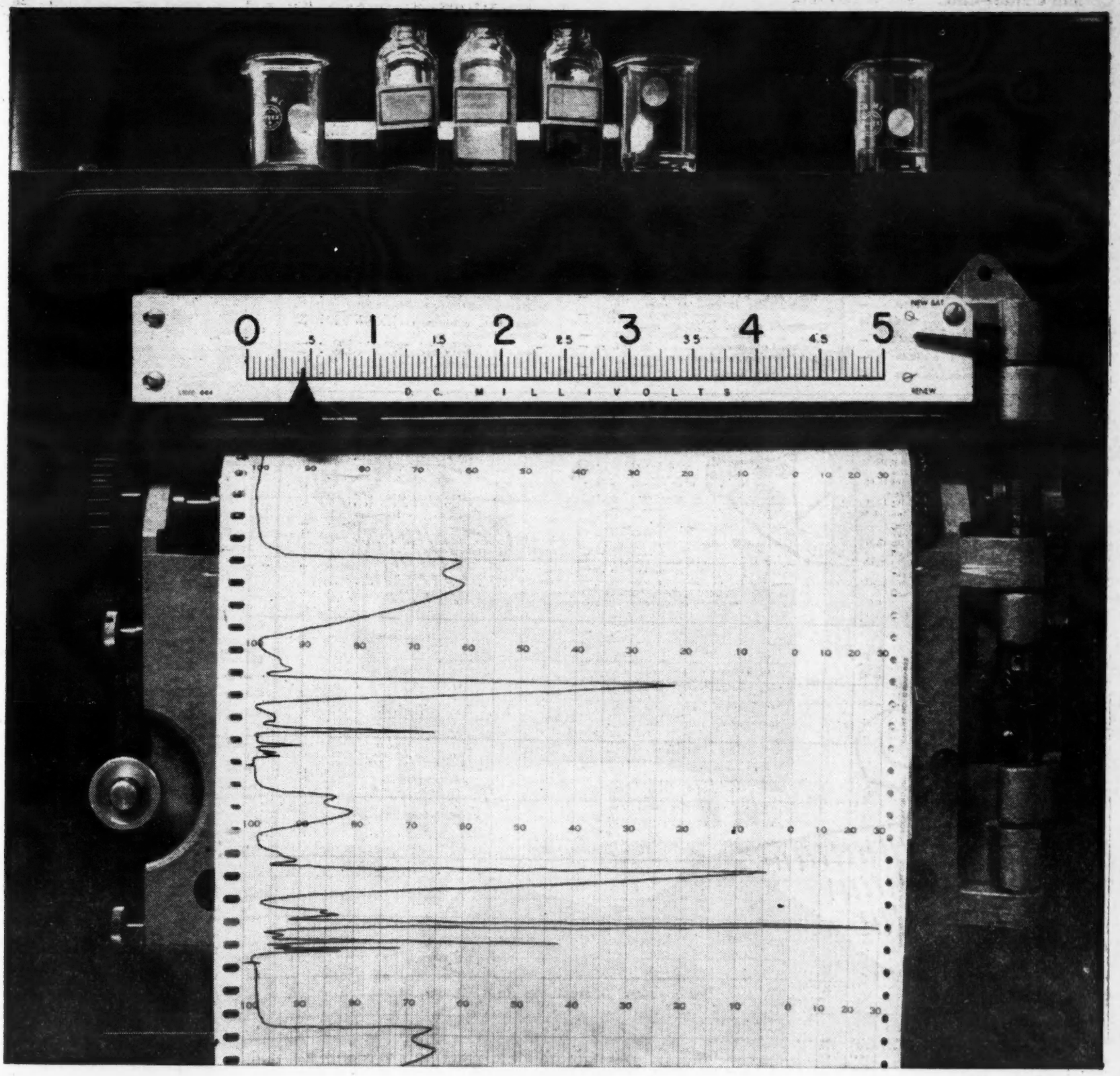
BROWN PIGMENTS

Brown pigment quotations are listed individually. For example, prices on Brown, Iron oxide, may be found in the I's under Iron oxide brown.

Butadiene, refd. cyls., c.l., refy lb. .21 - —
cyls., l.c.l., refy. lb. .22 - —
tanks, dlvd. lb. .14½ - —
Butene-1, tanks, works lb. .0625- —
Butene-2, tanks, works lb. .0570- —
n-Butyl acetate, ferment, dms., c.l., frt. alld lb. .17 - —
dms., l.c.l., same basis lb. .18½ - —
tanks, same basis lb. .14½ - —
Syn., dms., c.l., dlvd. E lb. .17 - —
dms., l.c.l., same basis lb. .18½ - —
tanks, same basis lb. .14½ - —
sec-Butyl acetate, syn., dms., c.l., dlvd. E lb. .14¾ - —
dms., l.c.l., same basis lb. .16¼ - —
tanks, same basis lb. .12¼ - —
n-Butyl acrylate, dms., c.l. or t.l., straight or mixed frt. alld. E lb. .42½ - —
dms., l.t.l. same basis lb. .43½ - —
tanks, same basis lb. .40 - —
Prices of n-Butyl acrylate are 1c. per lb. higher in Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
n-Butyl alcohol, ferment, dms., c.l., frt. alld lb. .18 - —
dms., l.c.l., frt. alld lb. .19½ - —
tanks, frt. alld. lb. .15½ - —
n-Butyl alcohol, syn., dms., c.l., dlvd lb. .18 - —
dms., l.c.l., frt. alld lb. .19½ - —
tanks, dlvd. lb. .15½ - —
Sec-synthetic, dms., c.l., dlvd lb. .15 - —
dms., l.c.l., dlvd. lb. .16½ - —
tanks, dlvd. lb. .12½ - —
n-Butyl alcohol, tert-synthetic, dms., c.l., frt. alld., dlvd E lb. .16 - —
dms., l.c.l., same basis lb. .17½ - —
tanks, same basis lb. .13½ - —
Butyl aldehyde (see Butyraldehyde).
Butyl chloride, dms., c.l., works lb. .37½ - —
dms., l.c.l., works lb. .38¼ - —
n-Butyl ether, dms., c.l., works lb. .35¼ - —
dms., l.c.l., works lb. .36 - —
tanks, works lb. .33¾ - —
Butyl lactate, dms., c.l., frt. alld. E. of Rockies lb. .42½ - —
dms., l.c.l., same basis lb. .43¼ - —
tanks, same basis lb. .40 - —
Butyl laurate, dms., works lb. .37½ - —
Butyl methacrylate, dms., c.l., t.l., works lb. .55 - —
dms., l.c.l., works lb. .55½ - —
Butyl oleate, refd., dms., l.c.l., works lb. .32 - —
Butyl phenylacetate, dms. lb. 4.50 - 4.60
Butyl phthalate (see Dibutyl phthalate).
Butyl stearate, dms., c.l., frt. alld. E. of Mississippi lb. .27¼ - —
dms., l.c.l., same basis lb. .28¼ - —
Butylamine (see Mono-, Di- and Tri-butylamine).
tert-Butylamine, dms., c.l., t.l., f.o.b. works lb. .47 - —
dms., l.c.l., same basis lb. .47½ - —
tc., t.t., same basis lb. .45 - —
Butylated hydroxyanisole, food grade, dms., dlvd. lb. 4.75 - —
6-tert-Butyl-m-cresol (see Mono-tert-butyl-m-cresol).
Butylated hydroxytoluene (see 2,6-Di-tert-butyl-p-cresol).
1,3-Butylene glycol, dms., c.l., t.l., dlvd lb. .20½ - —
dms., l.c.l., t.t.l., f.o.b. works lb. .22 - —
tanks, dlvd lb. .18 - —
p-tert-Butylphenol, bgs., c.l., dlvd., lb. .27½ - —
bgs., l.c.l., works lb. .28½ - —
Butyraldehyde, dms., c.l., dlvd lb. .22 - —
dms., l.c.l., dlvd. lb. .23½ - —
tanks, dlvd. lb. .19½ - —
Butyric acid, 99%, dms., c.l., frt. equald lb. .34 - —
dms., l.c.l., same basis lb. .34½ - —
tanks, same basis lb. .32½ - —
Butyric ether (see Ethyl butyrate).
Butyrolactone, dms., c.l., t.l., works. lb. .40 - —
dms., l.c.l., same basis lb. .43 - —

C

Cacao butter (see Cocoa butter).
Cadmium CP red dark shade, bbls., frt. alld. E. of Rockies lb. 5.55 - —
Light shade, bbls., same basis lb. 4.65 - —
medium shade, bbls., same basis. lb. 5.30 - —
Medium light shade, bbls., same basis lb. 4.90 - —
Orange-red shade, bbls., same basis lb. 4.30 - —
Yellow, all shades, bbls., frt. alld. E. of Rockies lb. 2.85 - —
Cadmium iodide, 25-lb. fib. dms lb. 6.75 - 7.00
Cadmium metal, ingots or sticks, ton lots, cs., dlvd lb. 1.30 - —
Cadmium-mercury lithopone orange, deep shade, bbls., frt. alld E. of Rockies lb. 1.65 - —
Cadmium-mercury lithopone red, dark shade, bbls., same basis lb. 1.95 - —
Red, light shade, bbls., same basis. lb. 1.72 - —
Red, medium shade, bbls., same basis lb. 1.87 - —
Red, medium light shade, bbls., same basis lb. 1.80 - —
Red, maroon shade, bbls., same basis lb. 2.03 - —
Cadmium-selenide lithopone maroon, bbls., frt. alld E. of Rockies lb. 2.76 - —
Orange, bbls., same basis lb. 1.58 - —
Cadmium-selenide lithopone red, orange-red shade, bbls., same basis lb. 1.72 - —
Red, dark shade, bbls., same basis. lb. 2.56 - —
Red, light shade, bbls., same basis. lb. 1.88 - —
Red, medium shade, bbls., same basis lb. 2.00 - —
Red, medium-light shade, bbls., same basis lb. 2.23 - —
Calmium-selenide lithopone, yellow, all shades, bbls., frt. alld. E. of Rockies lb. 1.19 - —
Caffeine, NF, citrated, dms., 100-lb. lots or more lb. 2.70 - —
USP, nat., cryst., anhyd., dms., 100-lb. lots or more lb. 2.10 - —
Caffeine, USP, nat., cryst., hydrous, dms., 100-lb. lots or more. lb. 1.96 - —
USP, syn., anhyd., dms., 100-lb. lots or more lb. 2.10 - —
cryst., hydrous, dms., 100-lb. lots or more lb. 1.96 - —
Cajuput oil, native, cns. lb. 1.75 - 2.00
Redist., USP, cns lb. 1.90 - 2.10
Calamine, USP, dms. lb. .34 - —
Calamus oil, bots. lb.12.00 -20.00
Calciferol, cryst., 10-kilo or more lots, works gram. .54 - —
1-10 kilo lots gram. .55 - —
Calciferol, in edible oil (see Viosterol).
Calcium p-aminosalicylate trihydrate, fib. dms., 100 lbs. or more, frt. adjusted lb. 3.10 - —
Calcium arsenate, dealers, bgs., c.l., frt. alld lb. .09 - .09¼
bgs., l.c.l., same basis lb. .10 - .10½
Calcium bromide, NF, jars, 100 lbs. or more lb. .97 - —
Calcium carbide, standard generator size, 600-lb. dms., c.l., dlvd ton.149.00 - —
Calcium carbonate, nat., dry-grd., air floated, 325 mesh, bgs., c.l., works ton.10.50 - —
Calcium carbonate, chalk, whiting, 325 mesh, bgs., c.l., works. ton.32.00 -34.00
water-grd., ½ to 10 microns, bgs., c.l., works ton.30.00 - —
10 to 20 microns, bgs., c.l., works ton.17.00 -18.00
precip., dense, bgs., c.l., works. ton.30.00 -38.50
bgs., l.c.l., works ton.45.00 -53.50
medium, bgs., c.l., works ton.38.00 - —
bgs., l.c.l., works ton.46.00 -53.00
surface treated, bgs., c.l., works. ton.42.00 -44.00
bgs., l.c.l., works ton.57.00 -59.00
ultrafine, bgs., c.l., works. ton.117.50 -167.50
bgs., l.c.l., works ton.137.50 -187.50
Calcium chloride, conc., flake or pellet, 94-97%, paper bgs., c.l., works, frt. equald. ton.39.30 - —
Flake, 77-80%, paper bgs., c.l., works, frt. equald ton.32.00 - —
Liquor, 40%, tanks, frt. equald. ton.12.50 - —
Powd., 77% min., paper bgs., c.l., works, frt. equald ton.37.00 - —
Purif., gran., dms. lb. .27 - —
Solid, 73-75%, dms., c.l., frt. equald ton.29.50 - —
dms., l.c.l., works, frt. equald. ton.36.00 -73.00
USP, gran., dms. lb. .32 - —
Calcium chromate, bgs., dlvd lb. .37 - —
Calcium cyanide dms., c.l., dlvd, E. of Rockies lb. .20 - —
dms., l.c.l., same basis lb. .24 - .55
Calcium cyclamate, 100-lb. dms lb. 1.95 - —
Calcium gluconate, USP, AA grade, 100-lb. dm., ton lb. .72½ - —
USP, powd., 100-lb. dm., ton lb. .66½ - —
Calcium hydride, lump, dms., works. lb. 2.20 - 3.00
Calcium hypochlorite, high test, gran., 45-lb. cs., dlvd. E. of Rockies cs.23.85 -25.60
100-lb. dms., same basis dm.33.30 -36.55
Calcium hypophosphite, dms., 1,000-lb. lots lb. 1.28 - —
Calcium iodide, jars lb. 4.52 - —
Calcium lactate, NF, dms., f.o.b. works lb. .43 - .46
Calcium mandelate, USP, 150-lb. dm., works lb. 3.25 - —
Calcium naphthenate, liq., 4% Ca., dms., frt. equald lb. .30 - —
Calcium pantothenate, USP, jars, 1 kilo or more kilo.35.00 - —
Calcium para-aminosalicylate (see Calcium p-aminosalicylate).
Calcium phenosulfonate, dms. lb. 1.24 - 1.25
Calcium phosphate, dibasic, USP, bgs., c.l., frt. equald 100 lbs.16.00 - —
Dibasic, feed grade, 18½% P, bgs., c.l., t.l., frt. equald ton.86.00 - —
bgs., c.l., t.l., f.o.b. Texas City works ton.80.50 - —
bgs., l.c.l., frt. equald ton.96.00 - —
Dibasic, feed grade, 21% P., bgs., c.l., t.l., frt. equald ton.97.65 - —
bgs., l.c.l., frt. equald ton.107.65 - —
Prices of calcium phosphate dibasic in bulk $3 per ton less than bgs., c.l., prices.
Calcium phosphate, monobasic, bgs., 10,000-lb. lots, frt. equald. 100 lbs. 7.45 - —
bgs., smaller lots, same basis. 100 lbs. 7.95 - —
Tribasic, NF, precip., bgs., c.l., works, frt. equald 100 lbs. 9.25 - —
bgs., l.c.l., frt. equald. 100 lbs.10.00 - —
Calcium propionate, any quantity, dms., dlvd. E. of Rockies. lb. .34½ - —
Prices W. of Rockies 3c. per lb. more.
Calcium phytate, bgs., 50 lbs. or more f.o.b. warehouse N. Y. lb. .39 - —
Calcium resinate, precip., dms., ton lots, frt. alld., works lb. .40¼ - —
Calcium silicate, hydrated, bgs., c.l., works lb. .06 - —
bgs., l.c.l., works lb. .06½ - —
Calcium silicate paint grade (see Wollastonite).
Calcium stearate, ctns., c.l. lb. .39 - —
ctns., l.c.l. lb. .40 - .44
Calcium sulfate (see Gypsum).
Calomel, NF, mild, powd., dms., 100-lbs., f.o.b. works lb. 4.42 - —
NF, mild, precip., dms., 100-lbs., f.o.b. works lb. 5.67 - —
Camphene, 46° m.p., dms. incl., c.l., works lb. .15 - —
dms. incl., l.c.l., same basis lb. .16½ - —
tanks, same basis lb. .12½ - —
Camphene, chlorinated, 67-69% (see Toxaphene).
Camphor, monobromated, NF, dms., kgs lb. 3.63 - 3.70
Nat., USP, powd., cs., 100-lb. lots. lb. .60 - .65
tablets, 1-oz. cs. lb. .85 - .90
Nat., USP, gran., bbls., 2,000-lb. lots lb. .59 - —
Syn., tech., 1 bbl. or more lb. .48 - —
Syn., USP, gran., powd., bbls., 1,000-lb lots lb. .60 - —
bbls., smaller lots lb. .61 - —
tablets, ctns., 1,000-lb. lots. lb. .85 - —
ctns. 500-lb. lots lb. .86 - —
ctns., smaller lots lb. .87 - —
Camphor oil, sassafrassy, dms. lb. .35 - .55
White, dms. lb. .26 - .50
Cananga oil, native, cns. lb. 5.00 - 6.50
Rectified, cns. lb. 7.25 -10.00
Candelilla wax, crude, bgs. lb. .65 - .68
Refd., pure, bxs. lb. .70 - .71
Powdered Candelilla wax 20 to 100 mesh, 8c. higher.
Cantharides, Chinese, cs. lb. 1.00 - —
powd., bgs. lb. 1.15 - —
Russian, bgs. lb. 2.00 - 2.15
powd., bgs. lb. 2.15 - 2.30
Capric acid, dms lb. .34 - .36½
tanks lb. .31½ - —
Caprolactum monomer, bgs., c.l., t.l., f.o.b. works lb. .52 - —
bgs., l.c.l., t.l.l., same basis lb. .57 - —
tanks, same basis lb. .49 - —
Capryl alcohol, 85% dms., c.l., t.l., works lb. .19 - —
dms., l.t.l., same basis lb. .19½ - —
tanks, frt. equald. lb. .16½ - —
Sec., 92-99%, dms., c.l., f.o.b. works lb. .22 - —
dms., l.c.l., f.o.b. works lb. .23 - —
tanks, f.o.b. works lb. .19½ - —
Caprylic acid, dms lb. .34 - .36½
tanks lb. .31½ - —
Capsicum (see Pepper red).
Capsicum oil (see Capsicum oleoresin).
Capsicum oleoresin, NF, from dom. pepper, dms lb. 4.00 - —
NF, from African pepper, dms. lb. 4.50 - —
Caraway oil, NF, dms. lb. 3.15 - 3.40
Caraway seed, Danish, bgs. lb. .16 - —
Dutch, bgs. lb. .17½ - —
Polish, bgs. lb. .17¼ - —
Carbazole, 97%, bbls, ton lots, works lb. 1.05 - —
Carbon black, channel, rubber beads, bulk, c.l., works lb. .08 - —
bgs., c.l., works lb. .08½ - —
bgs., l.c.l., works lb. .16¼ - —
Furnace fast extruding, bgs., c.l., works lb. .06¾ - —
ctns., l.c.l., whse. lb. .13½ - —
Carbon black, high abrasion, bulk, c.l., works lb. .07¼ - —
bgs., c.l., works lb. .07¾ - —
bgs., l.c.l., dlvd. or whse lb. .14½ - —
high modulus, bgs., c.l., works. lb. .06¼ - —
ctns., l.c.l., whse. lb. .13 - —
semi-reinforcing, bgs., c.l., works lb. .05¾ - —
bgs., ctns., l.c.l., whse. lb. .12½ - —
pigment, high color beads, ctns., c.l., works lb. .78 - —
ctns., l.c.l., dlvd. or whse lb. .87 - —
medium color, uncompressed, bgs., c.l., works lb. .14 - —
bgs., l.c.l., dlvd. or whse lb. .22½ - —
Carbon dioxide, indust., wholesale, bulk, 30,000-2,999,999 lbs., dlvd. Metropolitan areas, E ton.60.00 -115.00
bulk, 3,000,000 lbs. or more, dlvd. Metropolitan areas, E ton.55.00 - —
Solid, bulk, wholesale, works ton.85.00 - —
Carbon disulfide, 55-gal. dms., c.l., works, frt. equald to competitive points lb. .071 - —
55-gal. dms., l.c.l., same basis lb. .086 - .091
5-gal. dms., 30 dms. to c.l., same basis lb. .131 - —
5-gal. dms., less than 30 dms., same basis lb. .161 - —
tanks, dlvd. lb. .0545- —
Carbon tetrachloride, CP, consumers, dms., c.l., frt. alld. lb. .12¾ - —
dms., l.c.l., frt. alld. lb. .15¼ - —
Tech., consumers, dms., c.l., t.l., frt. alld lb. .11¾ - —
dms., l.c.l., l.t.l., frt. alld lb. .14¼ - —
tanks, frt. alld lb. .10¾ - .11¼
Carboxymethyl cellulose (see CMC).
Carbromal, NF, dms., 100-lb lots, works lb. 4.00 - 4.25
dms., smaller lots, works lb. 4.10 - 4.75
Cardamom oil, NF, bots. lb.39.00 -42.00
Cardamom seed, bleached "A" lb. 3.20 - —
Bleached "B" lb. 3.10 - —
Decorticated Alleppey, cs. lb. 2.30 - —
Guatemala, cs. lb. 3.15 - —
Green, Alleppey, bgs. lb. 2.35 - —
Ceylon, bgs. lb. 2.15 - —
Carmine No. 40, NF, bulk, 100-lb. lots or more, dlvd. lb.16.80 - —
bulk, smaller lots, dlvd. lb.16.90 -17.30
Carnauba wax, chalky, bgs., ton lots lb. .70 Nom.
North Country, No. 2, crude, bgs., ton lots lb. .82 - .84
refd., pure, ton lots lb. .86 - .87
North Country, No. 3, Ceara, ton lots lb. .73 - .74
Ceara, refd., pure, bgs., ton lots lb. .83 - .84
North country, No. 3, Parnahyba, ton lots lb. .74 - .75
Parnahyba, refd., pure, bgs., ton lots lb. .84 - .85
No. 1, Ceara, yellow, bgs., ton lots lb. 1.04 - 1.06
Parnahyba, yellow, bgs., ton lots lb. 1.05 - 1.07
Powdered carnauba wax, 20 to 100 mesh 8c. per lb. higher.
Carotene, tech., 1,350,000 A units per gram tins, 5-10 kilo lots, dlvd gram. .20½ - —
in carrot oil, 5,000,000 to 8,000,000 A units per lb., dms., works million units. .12 - —
USP, microcrystalline in oil, 400,000 A units per gram., dms., dlvd million units. .144 - —
b-Carotene, in vegetable oil, semi-solid suspension, 400,000 A units per gram, cns kilo.57.60 - —
Liquid in vegetable oil, 500,000 A units per gram, cns.kilo.72.00 - —
Pure, cryst., 1,600,000 to 1,670,000 A units per gram, cns. kilo.240.00 - —
Carvol, bots. lb. 5.00 - 5.40
Cascara sagrada bark, bulk lb. .34 - .36
Casein, dom., edible, acid precip., 30 mesh., bgs., 10,000-lb. lots or more, works lb. .56 - —
edible, acid, precip., 80 mesh, bgs., 10,000-lb. lots or more, works lb. .64 - —
Imp., inedible, acid-precip., gro., Argentine, bgs., c.l., ex-dock, Eastern seaports.lb. .19¼ - .19¾
New Zealand, bgs., c.l., same basis lb. .24 - —
Cashewnut shell, liquid, treated, dms., c.l., Newark, N. J.lb. .22 - —
dms., ton lots, same basis lb. .23 - —
dms., ton lots, same basis lb. .25 - —
Cassella acid, dms., frt. alld., 100% basis lb. 1.44 - 1.75
Cassia oil, redist., USP, cns. lb. 7.50 - 9.00
Cassia, Padang, "A," bls. lb. .30 - —
"B," bls. lb. .29 - —
"C," bls. lb. .28 - —
Korintje "A," bls. lb. .34 - —
"B," bls. lb. .30 - —
"C," bls. lb. .30 - —
Castor oil, dom., blown, dms., c.l. lb. .2550- —
dms., l.c.l. lb. .2650- —
dehydrated, bodied, dms., c.l. lb. .2700- —
dms., l.c.l. lb. .2850- —
tanks lb. .2500- —
dehydrated, unbodied, dms., c.l. lb. .2500- —
dms., l.c.l. lb. .2660- —
tanks lb. .2360- —
hydrogenated, bgs., c.l. lb. .2450- —
bgs., ton lots lb. .2850- —
bgs., l.c.l., dlvd. lb. .3050- —
No. 1, dms., c.l. lb. .2150- —
dms., l.c.l. lb. .2300- —
tanks lb. .2000- —
No. 3, tech., dms., c.l. lb. .2125- —
dms., c.l., lb. .2225- —
tanks lb. .1925- —
Refd. deod., dms., c.l. lb. .2650- —
dms., l.c.l. lb. .2750- —
tanks lb. .2450- —
USP, dms., c.l. lb. .2350- —
dms., l.c.l. lb. .2450- —
tanks lb. .2150- —
Imported, No. 1, Braz., tanks lb. .18¼ - —
Sulfonated, 50%, dms., works lb. .15 - .15¼
75%, dms., works lb. .19 - .19½
Castor oil acids, dehydrated, dms. lb. .44¼ - .46¼
Split, dms. lb. .37¼ - .38¼
Castor pomace, bgs., c.l., works ton.35.00 - —
Castoreum nat., cns. lb. 5.25 - —
Syn., cns. lb. 9.00 - —
Catechol, CP, cryst., fib., dms., works lb. 2.17½ - —
Resub., dms., works lb. 4.29½ - —
Catnip leaves, Southern, bls. lb. Nominal.
Caustic potash (see Potash caustic).
Caustic soda (see Soda, caustic).
Cedarleaf oil, USP XIII cns., dms. lb. 2.50 - 3.10
Cedarwood oil, cns., dms lb. .75 - .85
Celery seed, French, bgs. lb. .33 - —
Indian, bgs. lb. .19 - —
Cellulose acetate, flake, powd., bgs., t.l., dlvd. E lb. .36 - .51
Cellulose acetate-butyrate, powd., 17% butyryl content, bgs., dlvd. E lb. .545 - .555
27% butyryl content, bgs., dlvd. E lb. .595 - .605
38% butyryl content, bgs., dlvd. E lb. .545 - .555
38% butyryl content, half-second, bgs., dlvd. E lb. .545 - .555
50% butyryl content, bgs., dlvd. E lb. .585 - .595
Cellulose gum, methyl (see Methyl Cellulose).
Cellulose gum, pure, high vis., bgs., 23,000-lb. lots or more works, frt. alld lb. .57 - —
bgs., smaller lots, same basis lb. .59 - —
Cerium hydrate, 74% CeO, fib. dms., 100-lb. lots or more lb. 1.40 - —
77% CeO, fib. dms., 100-lb. lots or more lb. 1.74 - —
Cerium oxalate (see Rare earth oxalate).



Nobel Prize winner at work

Gas chromatography is a direct outgrowth of work for which two scientists received the 1952 Nobel Prize in Chemistry.

Initially, the Gas Chromatograph was used in our lab as a research tool. Now, a second unit is an integral part of quality control on all production runs at the McCook, Illinois plant. Our GC was the first to be used by a producer of fatty acids. Using gas chromatography permits more rapid and exact qualitative and quantitative product analyses . . . enabling us to maintain the highest purity standards in fractionated and distilled fatty acids.

Putting gas chromatography to work is just one more way we can expand our quality control to offer you the most uniform fatty acids you can buy. An excellent example of Armour quality control is our NEO-FAT® 12, Commercially Pure Lauric Acid. The uniformity and stability of Neo-Fat 12 make it especially valuable in esters, paints, detergents, stabilizers, catalysts and other products where a high lauric content is essential.

A new, informative report, "Progressive Aliphatic Chemistry," has just been published by Armour. Write today for your copy.

ARMOUR INDUSTRIAL CHEMICAL COMPANY

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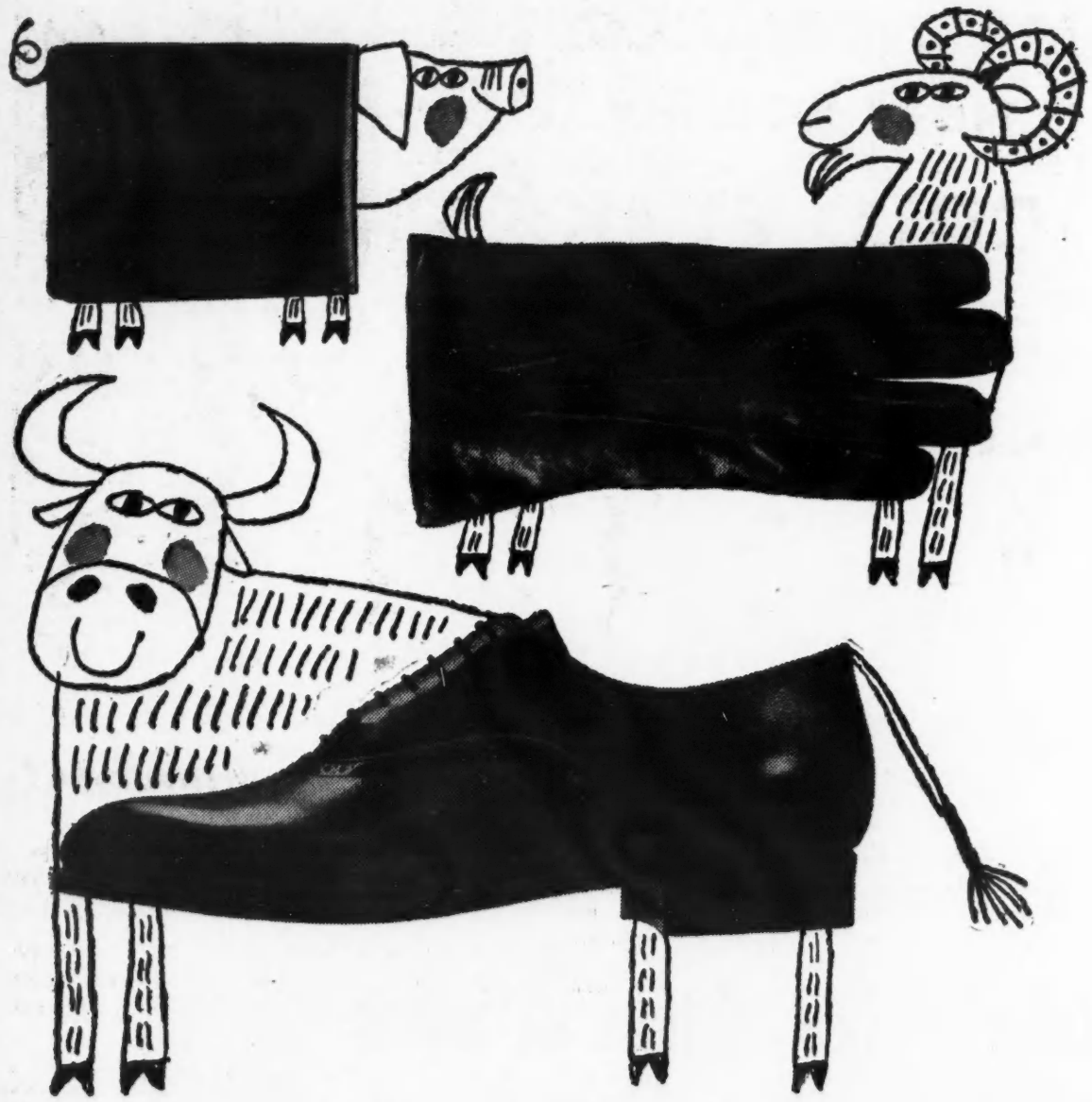
Cerium Oxide—CMC

Cerium oxide, optical grade, bgs., 50-lb. lots or more, dlvd. lb. 1.85 - 1.90
bgs., smaller lots, dlvd. lb. 2.15 - —
Cetyl alcohol, NF, fib. cns., c.l., t.l., dlvd. E. lb. .41½- —
fib. cns., l.c.l., same basis lb. .43½- —
tanks, same basis lb. .39 - —
Extra, cns., c.l., t.l., dlvd. E. lb. .48½- —
fib. cns., l.c.l., same basis lb. .50½- —
tanks, same basis lb. .46 - —
Chalk (see Calcium carbonate).
Chamomile flowers, Hungarian, bls. lb. 1.10 - —
Roman, cs. lb. 1.50 - 1.75
Chamomile oil, blue Hungarian, bots. lb. 350.00 - —
Charcoal, activated, NF, fib. dms., c.l., works lb. .25 - .32
fib. dms., 5-ton lots, works lb. .30½- .32½
fib. dms., smaller lots, works lb. .37 - .50
Charcoal, black (see Charcoal, activated).
Charcoal, bone (see Bone black).
Charcoal, hardwood, lump, bulk, c.l., f.o.b. plant ton. 55.00 - —
briquets, bulk, c.l., f.o.b. plant ton. 78.00 - 80.00
5-lb. paper bgs., c.l., same basis ton. 106.00 - —
25-lb. paper bgs., c.l., f.o.b. plant ton. 87.00 - —
40-lb. paper bgs. c.l., same basis ton. 84.00 - —
Chenopodium oil, NF, cns. lb. 4.15 - 5.00
Chicago acid, paste, bbls., frt. alld. lb. 3.21 - —
Chinawood oil (see Tung oil).
Chloral, tech., 94% min., dms., c.l., works lb. .23 - —
dms., l.c.l., works lb. .26 - —
tanks, multiple units, 5 cars, dms., l.c.l., works lb. .21 - —
Chloral hydrate, USP, jars, 1,000-lb. lots lb. 1.00 - —
jars, 500-lb. lots lb. 1.03 - —
jars, 100-lb. lots or less lb. 1.05 - —
Chlordan, agricultural, dms., c.l., frt. alld. lb. .65 - —
dms., l.c.l., 5,000-10,000-lb. lots, frt. alld. lb. .66 - —
Clarified, dms., c.l., frt. alld. lb. .69 - —
dms., l.c.l., 5,000-10,000-lb. lots, frt. alld. lb. .70 - —
Chlorinated paraffin, 42%, dms., c.l., frt. alld. lb. .16¾- —
dms., l.c.l., 10 dms. or more, same basis lb. .17¼- —
70%, dms., c.l., same basis lb. .18½- —
dms., l.c.l., 10 dms. or more, same basis lb. .19½- —
Chlorinated rubber, 5, 10, 20 cps., ctns., c.l., works lb. .60 - —
ctns., l.c.l., works lb. .61 - —
125, 1,000 cps., ctns., c.l., works. lb. .70 - —
ctns., l.c.l., works lb. .71 - —
Chlorine, liq., cyls., c.l., works, frt. equald. lb. .11 - —
cyls., l.c.l., Metropolitan area lb. .12½- .13½
tanks, single units, works, frt. equald. 100 lbs. 3.25 - —
tanks, multiple units, 5 cars, works, frt. equald. 100 lbs. 4.15 - —
tanks, multiple units, 4 cars, same basis. 100 lbs. 4.35 - —
tanks, multiple units, 2 cars, same basis. 100 lbs. 5.35 - 5.85
tanks, multiple units, 1 car, same basis⅝. 100 lbs. 6.25 - 7.25
Chloroacetic acid, mono, flake, 99%, purif., dms., c.l. lb. .23½- .25½
dms., l.c.l. lb. .24½- —
tech., flake, 95-97%, dms., c.l., dms., l.c.l., frt. equald lb. .20 - —
frt. equald lb. .19 - —
2-Chloro-4-aminotoluene, tech., liq., dms., frt. alld. lb. 1.03 - —
4-Chloro-2-aminotoluene, fused, bbls. lb. 1.38 - —
6-Chloro-2-aminotoluene, tech., liq., dms., frt. alld. lb. .66 - —
m-Chloroaniline, dms., c.l., frt. alld. lb. .73 - —
dms., l.c.l., same basis lb. .77 - —
tanks, same basis lb. .73 - —
o-Chloroaniline, dms., c.l., frt. alld. lb. .83 - —
dms., l.c.l., same basis lb. .84 - —
tanks, same basis lb. .80 - —
p-Chloroaniline, dms., c.l., frt. alld. lb. .77 - —
dms., l.c.l., same basis lb. .79 - —
o-Chlorobenzaldehyde, dms., t.l., works lb. 1.05 - —
dms., l.t.l., same basis lb. 1.20 - —
p-Chlorobenzaldehyde, dms., l.c.l., works lb. 1.95 - —
o-Chlorobenzoic acid, fib. dms., t.l., works lb. 1.10 - —
fib. dms., smaller lots, works lb. 1.35 - —
p-Chlorobenzoic acid, fib. dms., 2,000-lbs. or more, works lb. 2.25 - —
fib. dms., less than 2,000-lbs., same basis lb. 2.30 - —
Chloroform, tech., dms., c.l., dlvd. E. lb. .18 - —
dms., l.c.l., same basis lb. .19 - —
tanks, same basis lb. .17 - —
USP, dms., c.l., dlvd. lb. .27 - —
dms., l.c.l., dlvd. lb. .30 - —
tanks, minimum 4,000 gals. dlvd. lb. .25 - —
2-Chloro-4-nitroaniline, paste, dlvd. E., 100% basis lb. .31 - —
Powd., dlvd. E., 100% basis lb. .36½- —
4-Chloro-2-nitroaniline, powd., dlvd. E lb. .36 - —
4-Chloro-2-nitrophenol, tech., paste, dms., frt. alld lb. .75 - —
4-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld lb. .99 - —
6-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld lb. .17 - —
o-Chlorophenol, dms., c.l., frt. equald lb. .37 - —
dms., l.c.l., same basis lb. .38 - —
p-Chlorophenol, dms., c.l., frt. equald lb. .37 - —
dms., l.c.l., same basis lb. .38 - —
Chloropicrin, coml., cyls., 180 lbs., frt. alld lb. 1.07 - —
cyls., 100 lbs., same basis lb. 1.08 - —
cyls., 50 lbs., same basis lb. 1.14 - —
Chlorosulfonic acid, dms., c.l., frt. equald lb. .0465- —
dms., l.c.l., frt. equald lb. .0515- —
tanks, frt. equald lb. .0415- —
Chlorosulfonic acid, in stainless steel dms.½c. per lb. higher
o-Chlorotoluene, tech., dms., t.l., works lb. .37 - —
dms., l.c.l., l.t.l., same basis lb. .38 - —
Choline bitartrate, fib. dms., frt. adjusted kilo 2.75 - 3.00
Choline chloride, fib. dms., frt. adjusted kilo. 2.75 - 3.00
Choline dihydrogen citrate, fib. dms., frt. adjusted kilo. 2.75 - 3.00
Chrome green, CP, dark, light, medium blue content, 1-15%, bbls., dlvd. E. of Rockies. lb. .43 - —
blue content, 16-30%, bbls., same basis lb. .44 - —
medium blue content, 41-45%, bbls., same basis lb. .44 - —
blue content, 45-49%, bbls., same basis lb. .45 - —
Reduced color 25%, bbls., same basis lb. .20 - —
Chrome green prices 1c. higher W. of Rockies.
Chrome orange, CP, bbls., dlvd. E of Rockies lb. .33 - —
Chrome orange prices 1c. higher W. of Rockies.
Chrome yellow, CP, bbls., dlvd. E. of Rockies lb. .35 - —
Chrome yellow price 1c. higher W. of Rockies.
Chromic acid, 99¼%, dms., c.l., works, frt. equald lb. .29½- —
dms., l.c.l., dlvd. N. Y. Metropolitan area lb. .30 - .31
Chromic acid, NF (see Chromium trioxide).
Chromium acetate, soln., 7½%, dms., 500-2,000-lb. lots, works. lb. .10 - —
Chromium fluoride, bbls., works lb. .51 - .53
Chromium oxide, hydrated, bbls., fib. dms., c.l., frt alld. lb. 1.20 - —
Pure, bgs., c.l., frt. alld lb. .44½- —
bgs., l.c.l., same basis lb. .45¼- —
Chromium trioxide, NF, bots lb. 1.15 - —
Cinchona bark, NF, red, broken, bgs. lb. .25 - —
NF, yellow, broken, bgs lb. .35 - .40
Cinnamic acid, refd., bots lb. 2.50 - 3.50
Cinnamic alcohol, bots lb. 1.75 - 2.20
Cinnamic aldehyde, dms. lb. .80 - 1.00
Cinnamon, Ceylon, No. 2, bgs. lb. .57 - —
Ceylon, No. '0000,' bgs lb. .76 - —
Cinnamon bark oil, bots lb. 36.00 - 70.00
Cinnamon leaf oil, crude, dms. lb. 1.60 - 2.00
USP, (Cassia), cns., dms lb. 8.50 - 13.50
Citral, CP, bots. lb. 3.60 - 4.00
Extra, bots. lb. 3.60 - 5.00
Syn., dms. lb. 7.25 - 7.40
Citric acid, USP, anhyd., fine gran., bgs., dms., c.l lb. .29½- .30
bgs., dms., 10,000-lb. lots, 1 shipt lb. .30 - .30¼
bgs., dms., smaller lots lb. .30½- .31
USP, hydrous, fine gran., bgs., dms., c.l lb. .27½- .28
bgs., dms., 10,000-lb. lots, 1 shipt lb. .28 - .28½
bgs., dms., smaller lots lb. .29 - .29½
Powdered citric acid ½c. per lb. higher.
Citronella oil, Celyon, dms lb. 1.25 - 1.50
Java-type, dms. lb. 1.00 - 1.30
Citronellal, bots., dms lb. 1.60 - 2.10
Citronellol, bots., dms. lb. 1.90 - 2.50
Synthetic, dms. lb. 1.70 - —
Civet, artif., bots lb. 13.75 - 15.00
Nat., bots. oz. 8.50 - 15.00
Clay, ball., dom., airfloated, bgs., c.l., Tenn ton. 17.50 - 21.50
crushed shed moisture, bulk, c.l., Tenn ton. 8.00 - 11.00
imp., airfloated, bgs., c.l., Atl. port net-ton. 42.00 - 45.75
lump, bulk, Atl. port net-ton. 29.50 - 35.75
Clay, China, dom., dry-grd., airfloated, 99%, 325 mesh, Georgia, bgs., c.l., works. ton. 10.00 - 12.00
Georgia, bgs., l.c.l., works. ton. 15.50 - —
dom., airfloated, 99%, 300 mesh bgs., c.l., Georgia, works. ton. 13.50 - 14.50
bgs., l.c.l., ex-whse ton. 35.00 - 36.00
imp., white, lump, bulk, c.l., ex-dock, Philadelphia, Portland, Me long-ton. 30.00 - 35.00
white, powd., bgs., c.l., ex dock. net-ton. 50.00 - —
bgs., l.c.l., ex whse net-ton. 60.00 - 70.00
Cleaners naphtha, petroleum, 105°F Flash, tankcars, New Jersey and New York gal. 18 - —
Group 3 gal. .12875- —
Houston, Texas gal. .145 - —
140°F Flash, tankcars, New Jersey or New York gal. .208 - —
Group 3 gal. .154 - —
Houston, Texas gal. .17 - —
Cleve's acid, tech., mixed, solid, dms., frt. alld lb. 1.05 - —
1.6, tech., solid, dms., frt. alld lb. .77 - —
1,7, tech., dms., frt. alld lb. 2.20 - —
Cloves, Madagascar, bgs lb. .40½- —
Zanzibar, bgs. lb. 42½- —
Clove bud oil, USP, dms lb. 2.70 - 3.60
Clove leaf oil, crude, dms lb. 1.30 - 1.70
CMC, crude, 96.4% low or medium vis., bgs. or fib. dms., 23,000 lbs., dlvd. E., 100% basis lb. .41½- —
96.4% low, or medium vis., bgs. or fib. dms., less than 23,000 lbs., dlvd. E., 100% basis lb. .43½- —
65%, low or medium vis., bgs., or fib. dms., c.l., dlvd. E., 100% basis lb. .41½- —
bgs. or fib. dms., l.c.l., dlvd. E., 100% basis lb. .43½- —
purif., high vis. (see Cellulose gum).



Chrome chemicals put the soft sell in leather

Among consumers, leather still rates tops in beauty, luxury, elegance, durability—despite strong competition from newer materials.

One big reason for this preference is the softness and comfortable wearing properties imparted by chrome tanning. The change from tough, unattractive raw hides to soft, luxurious, finished leathers is little short of miraculous.

For shoe uppers, gloves, wallets, coats and other clothing—in fact, for any leather product in which softness and durability are important—tanning with Columbia-Southern chrome chemicals is the preferred method. And in the preparation of hides for the tanning process, Columbia-Southern sodium sulfide and sodium sulphydrate play important roles.

Columbia-Southern, a leading producer of chlorine, alkalies and related chemicals, supplies the leather industry—and virtually every other major industry—with essential chemicals.

You'll like doing business with Columbia-Southern

columbia | southern chemicals

COLUMBIA-SOUTHERN CHEMICAL CORPORATION • A Subsidiary of Pittsburgh Plate Glass Co. • One Gateway Center, Pittsburgh 22, Pa.

Anhydrous Ammonia, Barium Chemicals, Benzene Hexachloride, Calcium Chloride, Calcium Hypochlorite (Pittchlor®, Pittabs®), Carbon Tetrachloride, Caustic Potash, Caustic Soda, Chlorine, Chlorinated Benzenes, Chloro IPC, Chrome Chemicals, Hydrogen Peroxide, Muriatic Acid, Pacific Crystals, Perchlorethylene, Rubber Pigments (Hi-Sil®, Silene®, Calcene®), Soda Ash, Sodium Bicarbonate, Sodium Sulfate, Titanium Tetrachloride, Trichlorethylene.

CMC, standard, low or medium vis., bgs., 23,000 lbs., works, frt. alld lb. .57 - —
bgs., smaller lots, same basis, lb. .59 - —
CMC prices W. of the Rockies are 2c. per lb. lower and are on a works basis.
Coaltar, crude, resale for soln., tanks, works gal. .17 - —
Refd., resale, indust., dms., c.l., ex whse gal. .35 - —
dms., l.c.l., ex whse gal. .39 - —
tanks, works gal. .20½ - —
Coaltar pitch, aluminum, bulk, works. ton 44.00 - —
Carbon and indust., bulk, works. ton 44.00 - —
Core, bulk, works ton 40.50 - —
Fiber, bulk, works ton 48.00 - —
Roofing, 140-155°F., Federal Specification RP-381 Type 1, tanks, works ton 41.00 - —
Cobalt acetate, 23.7% Co., dms., dlvd lb. 1.04 - —
Cobalt blue, genuine, 250 lb. bbls., dlvd. E. of Rockies lb. 4.90 - —
Cobalt blue prices 1c. higher W. of Rockies.
Cobalt blue, imitation (see Ultramarine blue).
Cobalt carbonate, 48% Co., powd., bgs., dlvd lb. 1.45 - —
Cobalt chloride, 24.2% Co., dms., dlvd lb. .99 - —
Cobalt hydrate, 60-61% Co., dms., dlvd lb. 2.05 - —
Cobalt linoleate, fused 8½% Co., dms. lb. .71½ - —
Liq., 6% Co., dms lb. .57½ - —
Cobalt metal, 99%, dms., f.o.b. carrier lb. 1.50 - —
Cobalt naphthenate, liq., 6% Co., dms., dlvd lb. .48¾ - —
Cobalt nitrate, 20.1% Co., bbls., dlvd. lb. .80 - —
Cobalt oxide, black, ceramic grade, 72½-73½% Co., kgs., dlvd. E. of Mississippi R. lb. 1.15 - —
70-71% Co., kgs., same basis lb. 1.12 - —
Cobalt oxide prices W. of Mississippi R. 3c. per pound higher.
Cobalt phosphate, powd., 32.1% Co., dms., dlvd lb. 1.35 - —
Cobalt resinate, fused, 3% Co., dms. lb. .33½ - —
Cobalt sulfate, cryst., 21% Co., dms., dlvd lb. .64 - —
Monohydrated, 33% Co., dms., dlvd lb. 1.09 - —
Cobalt tallate, 6% Co., dms., dlvd. lb. .44 - —
Cocaine, USP, cns., 100-oz. lots, f.o.b. works oz. 17.50 - —
Cocaine hydrochloride, cns., 100-oz. lots, f.o.b. works oz. 13.75 - —
Cocillana bark, bls lb. .18 - .20
Cocoa butter, bgs. lb. .56½ - .61
Coconut oil, crude, tanks, New York lb. .16¾ - —
tanks, Pac. coast lb. .14¾ - —
Refd., deodorized, dms. lb. .23 - .23½
Coconut oil acids, dist., dms. lb. .28¼ - .30¾
tanks lb. .25¾ - —
Double dist. (stripped), dms. lb. .29¼ - .33
tanks lb. .26¾ - —
Cod oil, dms., spot lb. .08⅜ - .08½
Codeine, NF, cns., 100-oz. lots oz. 13.25 - —
Codeine hydrochloride, cns., 100-oz. lots oz. 11.75 - —
Codeine phosphate, USP, cns., 100-oz. lots oz. 10.25 - —
Codeine sulfate, USP, cns., 100-oz. lots oz. 10.75 - —
Codliver oil, USP, dms gal. 1.40 - 1.70
Cohosh root, black, bls lb. .20 - .25
Blue, bls. lb. .20 - .25
Colchicine, USP, bots oz. 29.00 - —
Colchicum root, bls lb. .35 - .45
Colchicum seed, bgs lb. .75 - .80
Collodion, USP, dms lb. .32½ - —
USP, flexible, dms lb. .34 - —
Colocynth pulp, bls. lb. .75 - —
Colombo root, bls lb. .16 - .18
Condurango bark, bls lb. .18 - .20
Congo copal gum, No. 1, bgs lb. .25 - .27
No. 2, bgs lb. .22 - .24
No. 3, bgs. lb. .18 - .20
Copaiba balsam, cns., dms lb. .60 - .65
Copaiba oil, cns lb. 1.35 - 2.00
Copper acetate, bbls., c.l., works. lb. .53 - —
bbls., l.c.l., works lb. .54 - —
Copper carbonate, 55%, bgs., c.l., works lb. .3635 - —
bgs., l.c.l., works lb. .3785 - —
Copper chloride, cupric, anhyd., dms., works lb. .45½ - .46
cryst., dihydrate, dms., works, lb. .31 - .31½
cryst., dried, dms., works lb. .39¼ - .39¾
Copper chloride, cuprous, dms., works lb. .4135 - .4435
Copper cyanide, tech., dms., 20,000-lb. lots or more lb. .609 - —
dms., 1,000-lb. lots or more lb. .619 - —
dms., smaller lots lb. .639 - .65
Copper gluconate, dms lb. 3.20 - —
Copper hydrate, dms., c.l., frt. alld, E. of Miss lb. .53½ - —
dms., l.c.l., same basis lb. .54 - —
Copper metal, electrolytic, dlvd. Valley basis lb. .33 - .36
Copper naphthenate, liq., 8% Cu, dms, frt. alld lb. .26½ - —
Copper nitrate, tech., cryst., dms., works lb. .30¼ .32¾
Copper oleate, solid, 9% Cu, dms., works lb. .45 - —
Copper oxide, black, bbls., 100-5,000-lb lots, works lb. .49¼ - —
Copper oxide, red, 97% USN Type 1, bbls., 100-5,000-lb. lots. lb. .50½ - —
90%, USN Type II, bbls., 100-5,000-lb. lots or more, works lb. .48½ - —
Copper quinolinolate, 18% Cu, dms., ton lots lb. 4.25 - —
10% active quinolinolate, dms lb. 1.14 - 1.18
Copper resinate, precip., dms., frt. alld lb. .41½ - —
Copper sulfate, CP, gran., dms., works lb. .1885 - —
Cryst., 99%, bgs., c.l., works. 100 lbs. 13.00 - —
bgs., l.c.l., works 100 lbs. 13.25 - 15.75
Monohydrated, 35%, dms., c.l., works 100 lbs. 24.00 - —
dms., l.c.l., works 100 lbs. 24.75 - —
Tribasic, distributors, bgs., c.l., works 100 lbs. 29.60 - —
bgs., l.c.l., works 100 lbs. 31.10 - —
Copper undecylenate, dms lb. 2.75 - —
Copra, Atl., Gulf ports, c.i.f ton 200.00 - —
Pac. ports, c.i.f ton 195.00 - —
Coriander oil, USP, bots. lb. 8.00 - 9.00
Coriander seed, Moroccan, bgs lb. .08 - —
Rumanian, bgs. lb. .07½ - —
Yugoslavian, bgs. lb. .08½ - —
Corn oil, crude, tanks, works lb. .12⅞ - —
Foots (soapstock) acid 95%, tanks, New York lb. .05¼ Nom.
Refd., salad, dms. lb. .1860 - .1885
tanks lb. .1673 - —

Corn oil acids, dist., dms. lb. .15¾ - .18¼
tanks lb. .1648 - —
Corn sugar, tanners, chipped, paper bgs., c.l., 60,000 lbs. min. 100 lbs. 7.30 - —
paper bgs., l.c.l 100 lbs. 7.45 - —
Corn syrup, 42° Be., non-ret. dms., c.l. 100 lbs. 7.31 - —
non-ret. dms., l.c.l 100 lbs. 7.46 - —
Corrosive sublimate (see Mercuric chloride).
Cortisone acetate, USP, bots., kilo or more gram 1.05 - 1.75
Costus oil, bots oz. 6.00 - —
Cottonseed meal, 41%, bgs., Memphis ton 36.50 - —
Cottonseed oil, crude, tanks, South East lb. .10½ - .10⅝
tanks, Valley lb. .10½ - —
tanks, Texas, Lubbock lb. .10¼ - —
tanks, Texas, Waco lb. .10 - —
Foots (soapstock), acid, 95%, tanks, New York lb. .03½ - —
Refd., salad, dms lb. .15⅝ - .16
tanks lb. .13⅝ - —
Cottonseed oil acids, dist., dms lb. .15¾ - .18¼
tanks lb. .13⅛ - —
Coumarin, NF, cryst., dms lb. 3.30 - 3.40
Cramp bark, NF, bls lb. .90 - 1.00
Cream of tartar (see Potassium bitartrate).
Creosote carbonate, NF, bots., cbys., lb. 3.05 - 3.26
Creosote, coaltar, crude, tanks, works, frt. adjusted gal. .24 - —
Crude, soln. 80%, tanks, works, gal. .226 - —
Refd., dms., c.l., works gal. .50 - —
dms., l.c.l., same basis gal. 62 - —
tanks, same basis gal. .38 - —
West Coast creosote prices computed on a basis of 24c. per gallon for straight oil and 20c. per gallon for coaltar.

Creosote, beechwood, cbys., dms., f.o.b. works, dlvd. in Metropolitan area lb. 1.72 - 1.77
Hardwood, NF, cbys., dms., same basis lb. 1.42 - 1.47
Pinewood, dms., incl., c.l., works. lb. .0561 - —
dms., incl., l.c.l., works lb. .0634 - —
dms., incl., l.c.l., ex whse, New York lb. .0745 - —
tanks, works lb. .0460 - —
Creosote oil (see Creosote coaltar).
Cresol, tech., 50% below 204°C., dry above 207°C., wide distillation range, non-ret. dms., c.l., frt. alld lb. .16½ - —
non-ret. dms., l.c.l., same basis lb. .17½ - —
tanks, same basis lb. .143 - —
USP, non-ret. dms., c.l., same basis lb. .18 - —
non-ret. dms., l.c.l., same basis. lb. .19 - —
tanks, same basis lb. .16 - —
m-Cresol, 95-98%, dms., c.l., works. lb. .60 - —
dms., l.c.l., works lb. .61 - —
m-p-Cresol, 5-95% 3°C., dms., c.l., frt. equald lb. .18 - —
dms., l.c.l., same basis lb. .19 - —
tanks, same basis lb. .16 - —
2,97% 2°C., dms., c.l., frt. equald. lb. .22 - —
dms., l.c.l., same basis lb. .23 - —
tanks, same basis lb. .20 - —

o-Cresol 30.5°C. m.p. and over, ret. dms., c.l., frt. equald lb. .17 - —
ret. dms., l.c.l., same basis lb. .18 - —
tanks, same basis lb. .15 - —
30°-30.49°C. m.p., dms., c.l., frt. equald lb. .16½ - —
ret. dms., l.c.l., same basis lb. .17½ - —
tanks, same basis lb. .14½ - —
29°-29.9°C. m.p., dms., c.l., frt. equald lb. .16 - —
ret. dms., l.c.l., same basis lb. .17 - —
tanks, same basis lb. .14 - —
25°-28°C. m.p., dms., c.l., frt. equald lb. .15 - —
ret. dms., l.c.l., same basis lb. .16 - —
tanks, same basis lb. .13 - —
p-Cresol, 98%, dms., c.l., dlvd lb. .52 - —
dms., l.c.l., dlvd lb. .53 - —
tanks, dlvd. lb. .49 - —
2,3-Cresotic acid, dms., ton lots, works lb. .70 - —
dms., smaller lots, works lb. .72 - —
p-Cresyl methyl ether, cns lb. 1.80 - 2.05
Cresylic acid, coaltar, dom., meta-para content above 25%, resins and tricresyl phosphate grades, dms., c.l., t.l., frt. equald gal. 1.35 - —
dms., l.c.l., same basis gal. 1.40 - —
tanks, same basis gal. 1.15 - —
metapara content 25% or less, dms., c.l., t.l., same basis gal. 1.20 - —
dms., l.c.l., same basis gal. 1.25 - —
tanks, frt. equald gal. 1.00 - —

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2 ***You free*** **mixing equipment so you can handle more non-caustic business.**

3 ***You get*** **a product superior to hot flaked or ground ones. Unlike the usual flaking operation, heat-sensitive organic materials can be added. Your Solvay®-compounded alkali will be uniform in composition . . . non-caking . . . dustless . . . readily soluble . . . stable in transportation and storage.**

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Cresylic acid, coaltar, imp., meta-para content 25% or less, f.o.b. works, frt. equald, to competitive points, 50 dms. or more, gal. 1.03½- —
less than 50 dms., same basis gal. 1.05 - 1.15
tanks, same basis gal. 1.00 - —
Crotonaldehyde, 91-93%, dms., l.c.l, works lb. .25 - —
Crotonic acid, dms., 200 lbs. or more, l.c.l., dlvd lb. .36 - —
Cryolite, nat., indust., bgs., c.l., works 100 lbs.13.00 - —
bgs., l.c.l., works 100 lbs.14.25 - —
Cube root, powd., 5% rotenone, bgs., t.l., works lb. .21 - —
bgs., l.t.l., works lb. .22 - —
Cubeb berries, NF, bgs. lb. 1.00 - —
Powd., cs. lb. 1.15 - —
Cubeb oil, cns lb.12.00 -16.00
Cumene, dms., c.l., works lb. .12 - —
dms., l.c.l., works lb. .14 - —
tanks, works lb. .11 - —
Cumin seed, Iranian, bgs. lb. .30 - —
Moroccan, bgs. lb. .31 - —
Turkish, bgs. lb. .27 - —
Cumin seed oil, bots., cns lb.15.50 -17.00
Cyanamide, fertilizer, mixing grade, 21% N, gran., bgs., Niagara Falls, Ont., contract, ton.57.00 - —
Fertilizer, pulv., 21% N, bgs., works unit-ton. 2.85 - —
Indust. grade, bgs., c.l. works, ton.75.00 - —
bgs., l.c.l., works ton.96.00 - —
Indust. grade, 6-16 mesh, dms., c.l., works ton.120.00 - —
dms., l.c.l., works ton.140.00 - —
Cyclohexane, 99%, tech., dms., c.l., dlvd, E. of Rockies gal. 1.02 - —
dms., l.c.l., same basis gal. 1.10 - —
dms., c.l., dlvd. W. of Rockies gal. .77 - —
dms., l.c.l., same basis gal. .85 - —
tanks, works gal. .55 - —
86%, tech., 40-dm. lots or more, f.o.b. works gal. .56 - —
5-39 dms., same basis gal. .60 - —
tanks, same basis gal. .36 - —
Cyclohexanol, tech., dms., c.l., works, frt. alld. E lb. 28¼- —
dms., l.c.l., works, same basis, lb. 29½- —
tanks, works, same basis lb. 26 - —
Cyclohexanone, tech., dms., c.l., works lb. 33½- —
dms., l.c.l., works lb. 34½- —
tanks, works lb. .31 - —
Cyclohexylamine, dms., c.l., works, lb. .49 - —
dms., l.c.l., works lb. .50 - —
tanks, works lb. .47 - —
Cypress oil, bots. lb. 5.30 - —

D

2,4-D, tech., bgs., dms., c.l., works, frt. equald lb. .40 - —
bgs., dms., l.c.l., same basis lb. .45 - .49
2,4-D butyl ester, dms., c.l., works, lb. .43 - —
dms., l.c.l., same basis lb. .48 - .52
tanks, same basis lb. .42 - —
2,4-D isopropyl ester, dms., c.l., works lb. .43 - —
dms., l.c.l., works lb. .48 - .52
tanks, works lb. .42 - —
Dammar gum, Batavia, A E, cs. lb. No stocks.
East India, Batu, bold, bgs. lb. .15 - .17
nubs and chips, bgs. lb. .09 - .10
black, bold, bgs. lb. .15 - .17
nubs and chips, bgs. lb. .12¼- .13½
unscraped, bgs. lb. .13 - .14½
pale, chips, bgs. lb. .15 - .17
pale, nubs, bgs. lb. .20¾- .24
Siam, cs. lb. .30 - .33
Singapore, No. 1, bgs. lb. .34 - .40
No. 2, bgs. lb. .29 - .32
No. 3, bgs. lb. No stocks.
dust, bgs. lb. .18 - .20
Dandelion root, bls lb. .35 - .40
DDD, tech., flake, grd., fib. dms., c.l., works lb. .45 - .47
fib. dms., l.c.l., works lb. .46 - .48
DDT, flake or lump, bgs., c.l., dlvd lb. .23 - —
bgs., smaller lots, same basis, lb. .25 - —
fib. dms., c.l., same basis lb. .24 - —
fib. dms., smaller lots, same basis lb. .26 - —
Powdered DDT 1c. per pound higher.
DDVP (see Dimethyl dichlorovinyl phosphate).
1-Decanol, tech., dms., c.l., dlvd. E. lb. .43½- —
dms., l.c.l., dlvd. E. lb. .45½- —
tanks, dlvd. E. lb. .41 - —
Decyl alcohol, mixed isomers, dms., c.l., dlvd lb. .23½- —
dms., l.c.l., dlvd. lb. .25 - —
tanks, dlvd. lb. .21 - —
Perfume grade, bots. lb. 1.00 - 2.00
Decyl alcohol, normal (see 1-Decanol).
Deertongue leaves, bls. lb. .55 - .60
Defluorinated phosphate, feed grade, 14% P, paper bgs., c.l., t.l., Tupelo, Miss. ton.57.07 - —
18% P, paper bgs., c.l., works, ton.66.25 -71.80
19% P, paper bgs., c.l., t.l., works, Houston, Tex. ton.74.35 - —
Prices of defluorinated phosphate in bulk $3 per ton less than bg. c.l. prices.
Degras, common (15-17% free fatty acid), 400-lb. dms lb. .12 - —
Neutral (over 2% free fatty acid), 400-lb. dms lb. .19 - .23
Denatured alcohol, ethyl, CD-12, CD-13, CD-14, CD-17, dms., c.l., dlvd. E. of Rockies, gal. .69½- —
dms., l.c.l., same basis gal. .74½- .80½
tanks, dlvd., same basis gal. .53½- —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, proprietary solvent, dms., c.l., dlvd. E. of Rockies gal. .72 - —
dms., l.c.l., same basis gal. .77 - .83
tanks, same basis gal. .56 - —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, SD1, dms., dlvd. E. of Rockies gal. .70½- —
dms., l.c.l., same basis gal. .75½- .81½
tanks, same basis gal. .54½- —
SD2B, dms., c.l., dlvd. E. of Rockies gal. .69 - —
dms., l.c.l., same basis gal. .74 - .80
tanks, same basis gal. .53 - —
SD3A, dms., c.l., dlvd. E. of Rockies gal. .68 - —
dms., l.c.l., same basis gal. .73 - .79
tanks, same basis gal. .52 - —

Denatured alcohol, ethyl, SD23A, dms., c.l., dlvd. E. of Rockies gal. .70½- —
dms., l.c.l., same basis gal. .75½- .81½
tanks, same basis gal. .54½- —
SD23H, dms., c.l., dlvd. E. of Rockies gal. .71 - —
dms., l.c.l., same basis gal. .76 - .82
tanks, same basis gal. .55 - —
SD29, dms., c.l., dlvd. E. of Rockies gal. .69¼- —
dms., l.c.l., same basis gal. .74½- .80½
tanks, same basis gal. .53½- —
SD30, dms., c.l., dlvd. E. of Rockies gal. .68 - —
dms., l.c.l., same basis gal. .73 - .79
tanks, same basis gal. .52 - —
Denatured alcohol, ethyl, SD-35A, dms., c.l., dlvd. E. of Rockies gal. .71 - —
dms., l.c.l., same basis gal. .76 - .82
tanks, same basis gal. .55 - —
5D-40, dms., c.l., dlvd. E. of Rockies gal. .70½- —
dms., l.c.l., same basis gal. .75½- .81½
tanks, same basis gal. .54½- —
For anhyd. alcohol on above formulas prices are 7c. per gal. higher.
West coast dlvd. prices are the same as eastern prices, except in Idaho, Montana, Oregon, and Washington where a 5c. differential on tankcars is maintained.
d-Desoxyephedrine hydrochloride, dms. lb..15.00 -17.00
dl-Desoxyephedrine hydrochloride, dms. lb. 6.50 - —
Dextrin, corn, gum, paper bgs., c.l., 100 lbs. 9.38 - —
paper bgs., l.c.l. 100 lbs. 9.53 - —
canary dark, paper bgs., c.l. 100 lbs. 9.22 - —
paper bgs., l.c.l. 100 lbs. 9.37 - —
indust. grade, 6-16 mesh, canary light, paper bgs., c.l. 100 lbs. 9.12 - —
paper bgs., l.c.l. 100 lbs. 9.27 - —
white, paper bgs., c.l. 100 lbs. 8.96 - —
paper bgs., l.c.l. 100 lbs. 9.11 - —
Corn dextrin in cotton bgs. 15c. per 100 lbs. higher.
Dextrose, anhyd., coml., bgs., c.l. 100 lbs. 8.65 - —
bgs., l.c.l. 100 lbs. 8.80 - —
Anhyd., special, aluminum foil lined fib. dms., 200-lb. dms 100 lbs.14.70 - —
100-lb. dms. 100 lbs.15.20 - —
Hydrated, coml., bgs., c.l., ex whse. 100 lbs. 7.45 - —
bgs., c.l., ex whse. 100 lbs. 7.60 - —
USP, dms. lb. 19¾- —
Diacetyl, flavor grade, bots. lb. 4.30 - 4.55
Di-sec-amyl phenol, dms., c.l., works lb. .32 - —
dms., l.c.l., works lb. .33 - —
tanks, works lb. .29½- —
Di-tert-amyl phenol, dms., c.l., works lb. .32 - —
dms., l.c.l., works lb. .33 - —
tanks, works lb. .29½- —
Diacetone alcohol, acetone-free, dms., c.l., dlvd lb. .15½- —
dms., l.c.l., dlvd. lb. .17 - —
tanks, dlvd. lb. .13 - —
Tech., dms., c.l., dlvd. lb. .15 - —
dms., l.c.l., dlvd. lb. .16½- —
tanks, dlvd. lb. .12½- —
Diallylamine, dms., c.l., dlvd. lb. .98½- —
dms., l.c.l., dlvd. lb. 1.00 - —
tanks, dlvd. lb. .96 - —
o-Dianisidine, dry, tech., fib. dms. lb. 2.00 - —
Dibenzyl sebacate, dms., c.l., works. lb. .93 - —
dms., l.c.l., same basis lb. .94 - —
tanks, same basis lb. .91 - —
Dibromobenzene, bgs., 500-lb. lots, lb. .55 - —
2,6-Di-tert-butyl-p-cresol, feed grade, c.l., t.l., dms., dlvd. lb. .65 - —
l.t.l., dms., same basis lb. .68 - —
Food grade, c.l., t.l., dms., dlvd. lb. .65 - —
dms., l.t.l., same basis lb. .68 - 1.10
Tech., dms., c.l., t.l., dlvd. lb. .57 - —
dms., l.c.l., same basis lb. .60 - —
tanks, same basis lb. .54 - —
Dibutyl fumarate, dms., c.l., t.l., dlvd. E lb. .31½- —
dms., l.c.l., l.t.l., dlvd. E lb. .33 - —
tanks, dlvd. E lb. .29 - —
Dibutyl maleate, dms., c.l., t.l., dlvd. E lb. .31½- —
dms., l.c.l., l.t.l., dlvd. E lb. .33 - —
tanks, dlvd. E lb. .29 - —
Dibutyl phthalate, dms., c.l., dlvd. E lb. .28½- —
dms., l.c.l., same basis lb. .30 - —
tankcars, tanktrucks, 2,000 gals., same basis lb. .26 - —
tanktrucks, 1,000-1,999 gals, same basis lb. .26½- —
Dibutyl sebacate, dms., c.l., works. lb. .67½- —
dms., l.c.l., works lb. .68½- —
tanks, works lb. .65½- —
Dibutyl tartrate, dms., works, frt. alld lb. .65½- —
Dibutylamine, dms., c.l., dlvd lb. .55½- —
dms., l.c.l., same basis lb. .57 - —
tanks, same basis lb. .53 - —
Dicapryl phthalate, dms., c.l., dlvd. lb. .27½- —
dms., l.c.l., dlvd. lb. .29 - —
tanks, dlvd. lb. .25 - —
Dicapryl sebacate, dms., c.l., works. lb. .63 - —
dms., l.c.l., works lb. .63½- .64
tanks, works lb. .61 - —
2,5-Dichloroaniline, dms., works lb. .83 - —
3,4-Dichloroaniline, tech., solid, tanks, frt. alld lb. .73 - —
o-Dichlorobenzene, dms., c.l., frt. alld. E lb. .12¾- —
dms., l.c.l., same basis lb. .13¾- —
tanks, same basis lb. .11 - —
p-Dichlorobenzene, dms., c.l., f.o.b. works, frt. alld. E lb. .12 - —
dms., 2,000 lbs. or more same basis lb. .14½- —
1,4-Dichlorobutane, dms., c.l., or t.l., works lb. .33½- —
dms., l.c.l., or l.t.l., works lb. .34 - —
tanks, works lb. .32 - —
Dichlorodiphenyltrichloroethane (see DDT).
2,2-Dichloroethyl ether, dms., c.l., t.l., dlvd. E lb. .15½- —
dms., l.c.l., l.t.l., same basis lb. .17 - —
tanks, same basis lb. .13 - —
Dichloroisocyanuric acid, dms., c.l., t.l., frt. equald lb. .65 - —
dms., l.c.l., same basis lb. .75 - —
Dichloropentanes, dist., dms., c.l., works lb. .05 - —
dms., l.c.l., works lb. .06 - —
tanks, works lb. .03 - —
Dichlorophenoxyacetic acid (see 2,4-D).
Dicyclohexylamine, dms., c.l., works. lb. .54 - —
dms., l.c.l., works lb. .55 - —
tanks, works lb. .52 - —

Dicyclohexyl phthalate, gran., fib. dms., c.l., works, frt. alld. lb. .46½- —
fib. dms., l.c.l., same basis lb. .48 - —
Dicyclopentadiene, dms., c.l., f.o.b. works lb. .14½- —
dms., l.c.l., same basis lb. .14¾- —
tanks, same basis lb. .12 - —
Didecyl phthalate, dms., c.l., works. lb. .28½- —
dms., l.c.l., same basis lb. .30 - —
tankcars, tanktrucks, 2,000 gals. lb. .26 - —
tanktrucks, 1,000-1,999 gals, same basis lb. .26½- —
Dieldrin, dms., c.l., dlvd. lb. 1.85 - —
dms., l.c.l. dlvd. lb. 1.90 - —
Diethanolamine, dms., c.l., dlvd. E. lb. .27 - —
dms., l.c.l., same basis lb. .28½- —
tanks, same basis lb. .24½- —
Diethanolamine lauryl sulfate, dms., c.l., frt. alld lb. .27½- —
dms., l.t.l., frt. alld. lb. .28½- —
tanks, frt. alld. lb. .26½- —
Diethyl barbituric acid (see Barbital).
Diethyl carbonate, dms., c.l., f.o.b. works lb. .47½- —
dms., l.c.l., same basis lb. .48½- —
tanks, same basis lb. .45 - —
Diethyl ethanolamines, dms., c.l., dlvd lb. .69¼- —
dms., l.c.l., dlvd. lb. .71 - —
tanks, dlvd. lb. .67 - —
Diethyl oxalate, dms., c.l., f.o.b. works lb. .42½- —
dms., l.c.l., same basis lb. .43½- —
tanks, same basis lb. .40 - —
Diethyl phthalate, dms., c.l., dlvd. lb. .27½- —
dms., l.c.l., dlvd. lb. .29 - —
tanktrucks, 1,000-1,999 gals, same basis lb. .26½- —
tankcars, tanktrucks, 2,000-lb. lots, same basis lb. .26 - —
Diethyl sulfate, dms., c.l., works lb. .19½- —
dms., l.c.l., works lb. .20¼- —
tanks, works lb. .17½- —
Diethyl thiourea, dms., c.l., t.l., works lb. .58 - —
dms., l.c.l., same basis lb. .59 - —
Diethyl toluamide, 90-95% meta isomer, dms., c.l., t.l., works. lb. 2.30 - —
5-44 dm. lots, works lb. 2.35 - —
1-4 dm. lots, works lb. 2.40 - —
N,N-Diethyl-m-toluidine, tech., liq., tanks, frt. alld lb. .83 - —
Diethylamine, dms., c.l., dlvd. E lb. .52 - —
dms., l.c.l., same basis lb. .53½- —
tanks, same basis lb. .49½- —
N,N-Diethylaniline, dms., c.l., frt. alld lb. .57 - —
dms., l.c.l., same basis lb. .58 - —
tanks, same basis lb. .55 - —
Diethylbenzene, dms., t.l., frt. alld. lb. .16½- —
Di-2-ethylhexyl adipate (see Dioctyl adipate).
Di-2-ethylhexyl phthalate (see Dioctyl phthalate).
Diethylene glycol, dms., c.l., dlvd. E. lb. .17¾- —
dms., l.c.l., same basis lb. .19¼- —
tanks, same basis lb. .15¼- —
Diethylene glycol diethyl ether, dms., c.l., works lb. .51½- —
dms., l.c.l., works lb. .52¼- —
Diethylene glycol monobutyl ether, c.l., dms., works lb. .30¾- —
dms., l.c.l., works lb. .32¼- —
tanks, dlvd. E. lb. .28¼- —
Diethylene glycol monobutyl ether acetate, dms., c.l., works. lb. .30¾- —
dms., l.c.l., works lb. .31½- —
tanks, dlvd. E. lb. .28¾- —
Diethylene glycol monoethyl ether, dms., c.l., dlvd lb. .22½- —
dms., l.c.l., dlvd. lb. .24 - —
tanks, dlvd. E. lb. .20 - —
Diethylene glycol monoethyl ether acetate, dms., c.l., works. lb. .27¼- —
dms., l.c.l., works lb. .28 - —
tanks, works lb. .25¼- —
Diethylene glycol monomethyl ether, dms., c.l., dlvd lb. .21 - —
dms., l.c.l., dlvd. lb. .22½- —
tanks, dlvd. E. lb. .18½- —
Diethylenetriamine, dms., c.l., dlvd. E lb. .44 - —
dms., l.c.l., dlvd. E. lb. .45½- —
tanks, dlvd. E. lb. .41½- —
Diethylstilbesterol, USP, bots., 10-kilo lots kilo.100.00 -147.50
bots, 1-kilo lot kilo.110.00 -152.50
Digitalis leaves, USP, dom., dms lb. 1.25 - —
Digitoxin, USP, bots. gram. 4.20 - —
Diglycol laurate, dms. lb. .32¾- .34
Diglycol stearate, dms., ton lots lb. .26 - .28
Diglycolic acid, bgs., c.l., t.l., works. lb. .15½- —
bgs., l.c.l., works lb. .16 - —
Dihexyl sebacate, dms., c.l., works. lb. .66 - —
dms., l.c.l., works lb. .67 - —
tanks, works lb. .64 - —
Dihydrazine sulfate, dms., works lb. 1.10 - 1.25
Dihydrostreptomycin sulfate, bulk. gram. .035 - .036
1,2-Dihydroxy anthraquinone, dms., works lb. 3.45 - —
2,2-Dihydroxy-5-5-dichloro-diphenylmethane, pure, dms lb. 2.55 - —
Tech., dms., 20,000 lbs. or more lb. 1.11 - —
dms., 1,050 lbs. to 20,000 lbs. lb. 1.13 - —
dms., 150 lbs. to 1,050 lbs. lb. 1.15 - —
Di-isobutyl ketone, dms., c.l., dlvd. lb. .17 - —
dms., l.c.l., dlvd. lb. .18½- —
tanks, dlvd. lb. .14½- —
Di-isobutyl phthalate, dms., c.l., dlvd. E. lb. .31½- —
dms., l.c.l., same basis lb. .32½- —
tanks, same basis lb. .29 - —
Di-isobutylene, dms., c.l., dlvd. E lb. .10 - —
dms., l.c.l., dlvd. E. lb. .11½- —
tanks, dlvd. E. lb. .08 - —
Di-iso-octyl phthalate, dms., c.l., dlvd lb. .27½- —
dms., l.c.l., same basis lb. .29 - —
tanktrucks, 1,000-1,999 gals., dlvd. lb. .25½- —
tankcars, tanktrucks, 2,000 gals., dlvd lb. .25 - —
Di-iso-octyl sebacate, dms., c.l., works. lb. .62 - —
dms., l.c.l., works lb. .62½- .63
tanks, works lb. .60 - —
Di-isopropanolamine, dms., c.l., dlvd. lb. .23¼- —
dms., l.c.l., same basis lb. .24¾- —
tanks, same basis lb. .20¾- —
Di-isopropylamine dms., c.l., dlvd. E. of Rockies lb. .50½- —
dms., l.c.l., same basis lb. .52 - —
tanks, same basis lb. .48 - —
Dillweed oil, dom., bots., dms lb. 3.25 - 3.75
Dimethyl anthranilate, cns. lb. 4.15 - —
Dimethyl dichlorovinyl phosphate, 55-gal. dms., dlvd lb. 3.50 - —
Dimethyl ethanolamines, anhyd., dms., c.l. dlvd lb. 1.225 - —
dms., l.c.l., dlvd. lb. 1.235 - —
tanks, dlvd. lb. 1.20 - —
70% dms., c.l., dlvd., 100% basis, contained amines lb. .68½- —
dms., l.c.l., dlvd., 100% basis. lb. .69¼- —
tanks, dlvd., 100% basis lb. .66 - —

Dimethyl hydroquinone, dms. lb. 1.90 - 2.20
Dimethyl phthalate, dms., c.l., works lb. .27½- —
dms., l.c.l., works lb. .29 - —
tanktrucks, 1,000-1,999 gals., same basis lb. .25½- —
tankcars, tanktrucks, 2,000 gals., same basis lb. .25 - —
Dimethyl sebacate, dms., c.l., works. lb. 1.31 - —
dms., l.c.l., works lb. 1.30 - —
tanks, works lb. 1.28 - —
Dimethyl sulfate, ref. dms., c.l., works lb. .17½- —
ref. dms., l.c.l., works lb. .18½- —
tanks, works lb. .16½- —
Dimethyl sulfide, dms., c.l., works. lb. .16½- —
dms., l.c.l., works lb. .17 - —
tanks, works lb. .15 - —
Dimethylamine, 25% soln., dms., c.l., frt. equald, 100% basis lb. .38 - —
dms., l.c.l., frt. equald, 100% basis lb. .38½- —
tanks, frt. equald, 100% basis. lb. .36 - —
40% soln., dms., c.l., frt. equald, 100% basis lb. .35 - —
dms., l.c.l., frt. equald, 100% basis lb. .35½- —
tanks, frt. equald, 100% basis. lb. .38 - —
N,N-Dimethylaniline, dms., c.l., frt. alld lb. .28 - —
dms., l.c.l., same basis lb. .29 - —
tanks, same basis lb. .26 - —
N,N-Dimethylformamide, dms., c.l., t.l., works lb. .32½- —
dms., l.c.l., works lb. .33 - .34
tanks, works lb. .30 - —
2,4-Dinitroaniline, dms., frt. alld lb. .75 - —
Dinitroaniline orange toner, CP, bbls., dlvd. E. of Rockies. lb. 1.56 - —
Dinitroaniline orange toner prices 1c higher W. of Rockies.
m-Dinitrobenzene, 89°C., dms. lb. .26 - —
2,4-Dinitrochlorobenzene, crystallizing at 46½°C., dms., c.l., frt. alld. E lb. .17¼- —
dms., l.c.l., frt. alld. E. lb. .17¾- —
tanks, frt. alld. E. lb. .17 - —
2,4-Dinitrophenol, bbls. lb. .41 - —
2,4-Dinitrotoluene, oil, dms. lb. .11 - —
Refd., 63°C., dms. lb. .23 - —
Dioctyl adipate, dms., c.l., works lb. .42½- —
dms., l.c.l., works lb. .43½- —
tanks, works lb. .40 - —
Dioctyl phthalate, dms., c.l., frt. alld lb. .27½- —
dms., l.c.l., frt. alld. lb. .29 - —
tanktrucks, 1,000-1,999 gals., same basis lb. .25½- —
tankcars, tanktrucks, 2,000 gals., same basis lb. .25 - —
Dioctyl sebacate, dms., c.l., works. lb. .61¼- —
dms., l.c.l., works lb. .62¼- —
dms., l.c.l., works lb. .62¾ —
tanks, works, dlvd. lb. .59¼- —
1,4-Dioxane, dms., c.l., dlvd. E. lb. .31½- —
dms., l.c.l., dlvd. E lb. .33 - —
tanks, dlvd. E. lb. .29 - —
Prices in the west are 2c. per lb. higher.
Dipentaerythritol, bgs., c.l., t.l., dlvd. E lb. .40 - —
bgs., l.c.l., l.t.l., dlvd. E. lb. .41 - —
Dipentene, dest.-dist., dms., c.l., works gal. .58 - —
dms., l.c.l., works gal. .62 - —
dms., l.c.l., ex whse. gal. .78 - —
tankscars, works gal. .41 - —
Steam dist., dms., c.l., works, South gal. .72 - —
dms., l.c.l., dlvd. New York gal. .91 - —
tanks, works, South lb. .55 - —
Dip oil (see Tar acid oil).
Diphenolic acid, 1,000-lb. or more, bgs., works lb. .75 - —
Diphenolic polyether acids, 1,000-lb. or more, bgs., works lb. 1.00 - —
Diphenyl, bgs., c.l., t.l., works lb. .16¾- —
bgs., l.c.l., works lb. .18½- —
tanks, works lb. .15¾- —
Diphenyl oxide, perfume grade, cns. lb. .55 - .70
Diphenyl phthalate, dms., c.l., works. lb. .51¾- —
dms., l.c.l., works lb. .53¾- —
Diphenylamine, refd., flake, bgs., c.l., works, frt. equald lb. .31 - —
bgs., l.c.l., same basis lb. .33 - —
Refd., fused, tanks, same basis lb. .28 - —
Refd., diphenylamine in dms., ½c. per lb. higher.
Diphenylguanadine, bgs., dms., ton lots, frt. alld lb. .49 - —
bgs., smaller lots, frt. alld lb. .50 - —
Diphenylhydantoin-sodium, USP, dms lb. 5.00 - 5.60
Dipropylene glycol, dms., c.l., frt. alld lb. .17 - —
dms., l.c.l., frt. alld. lb. .18½- —
tanks, frt. alld. lb. .14¼- —
Dipropylene glycol methyl ether, dms., c.l., dlvd. E lb. .20 - —
dms., l.c.l., same basis lb. .21½- —
tanks, same basis lb. .18½- —
Dithiodibenzoic acid, dms., 1,000-lb. lots, works lb. 1.45 - —
Di-o-tolylguanidine, dms., ton lots, frt. alld lb. .69 - —
dms., smaller lots, frt. alld lb. .70 - —
Di-o-tolylthiourea, tech., solid, dms., c.l., t.l., frt. alld lb. .55 - —
Divinylbenzene, 20-25%, dms., c.l., works, frt. equald lb. .20 - —
dms., l.c.l., same basis lb. .21 - —
tanks, same basis lb. .19 - —
50-60%, dms., c.l., works, 100% basis lb. 1.00 - —
dms., l.c.l., works, 100% basis. lb. 1.05 - —
tanks, same basis lb. .90 - —
Dodecenyl succinic anhydride, dms., c.l., t.l., dlvd. E lb. .75 - —
dms., l.c.l., l.t.l., same basis lb. .76 - —
Dodecylbenzene, dms., c.l., f.o.b., works, frt equald lb. .134 - —
dms., l.c.l., same basis lb. .144 - —
tanks, same basis lb. .11 - —
Dodecylphenol, c.l., frt. alld. lb. .22 - —
dms., l.c.l., same basis lb. .23 - —
tanks, same basis lb. .19½- —
Dodecylphenol prices on shipments to Western States are 2c. per pound higher.
Dyes, coaltar, certified colors for food, drugs and cosmetics, 500-lb. and 1-lb. lots, dlvd.:
Blue, FD&C, No. 1 lb.15.65 -17.60
No. 2 lb.15.65 -17.60
Green, FD&C, No. 1 lb.15.65 -17.60
No. 2 lb.19.60 -22.85
No. 3 lb.31.30 -35.90
Red, FD&C, No. 1 lb. 5.90 - 7.85
No. 2 lb. 3.30 - 4.10
No. 3 lb.19.60 -22.85
No. 4 lb. 5.55 - 7.50
Violet, FD&C, No. 1 lb.15.65 -17.60
Yellow, FD&C, No. 1 lb. 9.15 -11.05
No. 5 lb. 3.30 - 4.10
No. 6 lb. 3.30 - 4.10
Dyes, coaltar, certified colors for drugs and cosmetics, 200-lb. and 1-lb. lots, dlvd.:—
Black, D&C, No. 1 lb.10.50 -10.95
Brown, D&C, No. 1 lb.15.65 -16.10
Green, D&C, No. 5 lb.15.65 -16.10
No. 6 lb.15.65 -16.10
No. 7 lb.14.35 -14.80

Dyes, coaltar, certified color for drugs and cosmetics, 300 lbs. and 1 lb. lots, dlvd:—
Orange, D&C, No. 3 ..... lb. 10.50 -10.95
No. 4 ..... lb. 19.60 -20.05
No. 5 ..... lb. 3.80 - 4.25
Red, D&C, No. 17 ..... lb. 10.50 -10.95
No. 18 ..... lb. 23.60 -24.00
No. 19 ..... lb. 15.00 -15.45
No. 21 ..... lb. 3.90 - 4.35
No. 22 ..... lb. 10.50 -10.95
No. 28 ..... lb. 24.15 -24.65
No. 33 ..... lb. 17.00 -17.45
Violet, D&C, No. 2 ..... lb. 15.65 -16.10
Yellow, D&C, No. 7 ..... lb. 10.50 -10.95
No. 8 ..... lb. 10.50 -10.95
No. 10 ..... lb. 13.05 -13.50
No. 11 ..... lb. 13.05 -13.50

Dyes, coaltar, certified colors for drugs and cosmetics, external use, 500-lb. and 1-lb. lots, dlvd.:—
Blue, Ext., D&C, No. 1 ..... lb. 15.65 -16.10
Green, Ext., D&C, No. 1 ..... lb. 15.65 -16.10
Red, Ext., D&C, No. 1 ..... lb. 13.05 -13.50
Yellow, Ext, D&C, No. 1 ..... lb. 10.50 -10.95

Dyes, coaltar for general use in cloth dyeing (numbers are those of the Color Index scale or prototype), contract dlvd. No.
11110 Brilliant scarlet BN ..... lb. 1.79 - —
13390 Fast blue SR ..... lb. 1.43 - —
14025 Yellow 2G ..... lb. 1.26 - —
14030 Orange R, extra, conc. .. lb. 1.64 - —
14645 Chrome black T ..... lb. .77 - —
14720 Rubine XX, conc. ..... lb. 1.59 - —
15510 Orange Y, extra conc. .. lb. .83 - —
15575 Orange RR ..... lb. .99 - —
15620 Fast Red A, conc ..... lb. 1.61 - —
15705 Chrome blue black R, conc. lb. 1.12 - —
16150 Scarlet 2RL ..... lb. 1.22 - —
16255 Brilliant scarlet 3RN, conc. lb. 1.26 - —
16230 Fast light, orange 2G ... lb. 1.39 - —
17590 Brown PG ..... lb. 3.00 - —
18050 Phloxine 2G ..... lb. 1.05 - —
18055 Fuchsine 6B ..... lb. 1.55 - —
18965 Fast yellow 2G ..... lb. 2.32 - —
19140 Yellow XX ..... lb. 2.48 - —
19555 Yellow NN, conc. ..... lb. 3.67 - —
20170 Brown Y ..... lb. 1.33 - —
20470 Blue black, extra, conc lb. 1.44 - —
21010 Brown, RX, conc. ..... lb. 1.35 - —
22240 Scarlet B ..... lb. 2.81 - —
22310 Red FC ..... lb. 1.57 - —
22311 Brown MCW ..... lb. 1.47 - —
22590 Diazo black BHD ..... lb. .93 - —
22610 Blue 2B, extra conc. .... lb. 1.53 - —
23500 Red. 4BX, conc. ..... lb. 1.80 - —
24410 Sky blue FF, extra, conc. lb. 1.95 - —
24895 Brilliant yellow, conc. .. lb. 3.27 - —
26360 Navy blue 3R, conc. .... lb. 1.84 - —
26695 Black F, conc. ..... lb. 2.30 - —
26900 Milling Red 3R, conc .... lb. 1.91 - —
27075 Neutral black 2B, conc . lb. 2.75 - —
27720 Gray L ..... lb. 2.18 - —
29135 Fast scarlet 4BNC ..... lb. 2.23 - —
30015 Diazo black VJ conc. .... lb. 2.48 - —
30045 Yellow brown K, extra . lb. 1.26 - —
30235 Black EB, 200% ..... lb. 1.33 - —
30295 Green BY, conc. ..... lb. 1.07 - —
35660 Brown B ..... lb. 2.89 - —
37565 Naphthol SWF ..... lb. 1.85 - —
40000 Yellow 2G ..... lb. 1.44 - —
41000 Yellow OX ..... lb. 2.45 - —
42000 Green V, crystals ..... lb. 2.73 - —
42040 Brilliant green G crystals. lb. 3.62 - —
42090 Blue EG ..... lb. 1.85 - —
42100 Milling green 6B, conc. . lb. 4.78 - —
42640 Violet 4BXN ..... lb. 2.43 - —
43820 Brilliant blue, BBG ..... lb. 2.44 - —
44045 Blue B, extra conc. ..... lb. 3.61 - —
45170 Red BX ..... lb. 4.76 - —
50415 Nigrosine SSJ ..... lb. 1.03 - —
52015 Blue GXX ..... lb. 2.33 - —
53185 Black, GXCF, conc. .... lb. .58 - —
58005 Alizarin red SC ..... lb. 3.64 - —
59700 Golden orange GFD, single paste lb. 2.70 - —
59710 Flaming orange 6RD double powder lb. 4.90 - —
59800 Dark blue BO, single paste, lb. 2.28 - —
59825 Jade green NC supra, double paste lb. 1.50 - —
61570 Alizarin green CG, extra lb. 3.81 - —
63010 Alizarin blue SAPG .... lb. 3.90 - —
63615 Alizarin blue black B .... lb. 3.26 - —
69825 Blue BLFD double paste lb. 2.82 - —
70800 Brown BR single paste . lb. 2.03 - —

Dyes, coaltar, oil-soluble, 100-lb. drums, dlvd. No.
12140 Oil scarlet BL ..... lb. 1.87 - —
12055 Oil orange 7078 V ..... lb. 1.38 - —
26120 Oil red N 1700 ..... lb. 1.94 - —
42535B Methyl violet base ..... lb. 1.88 - —
44045B Victoria blue base .... lb. 4.06 - —
50415B Oil black 8603 ..... lb. .80 - —
61565 Alizarin cyanine green base. lb. 6.13 - —
Spirit black RB ..... lb. 3.89 - —
Spirit brown GN ..... lb. 5.30 - —
Spirit orange R conc. .... lb. 5.87 - —
Spirit red B conc ..... lb. 6.41 - —
Pr. 517 Spirit yellow 2R conc . lb. 4.62 - —
Pr. 554 Spirit blue THN ..... lb. 5.06 - —

E

Echinacea root, bls. ..... lb. 1.25 - —
Elm bark, grinding, bls. ..... lb. .30 - .32
Powd., bbls., bxs. ..... lb. .50 - .55
Select, bundles ..... lb. .75 - —
Emetine hydrochloride, USP, bots. oz. 48.40 - —
Endrin, tech., dms., 100-lbs. or more, 100% basis, dlvd. . lb. 2.70 - —
Eosin red toner, bbls., works .... lb. 1.95 - —
Ephedrine, syn., USP, anhyd., bots. 100-oz. lots oz. .98 - 1.00
hydrous, bots., 100-oz. lots, oz. .92 - —
Ephedrine hydrochloride, NF, dms., 100-oz. f.o.b. works . oz. .72 - —
Ephedrine sulfate, USP, cryst., dms., 100-oz. f.o.b. works . oz. .73 - —
USP, powd., dms., 100-oz., same basis . . oz. .73 - —
Epichlorohydrin, dms., c.l., dlvd . . lb. .29½- —
dms., l.c.l., dlvd. ..... lb. .31 - —
tanks, dlvd. ..... lb. .27 - —
Epsom salt (see Magnesium sulfate).
l-Epinephrine base, syn., USP, bots., 100 gram. lots . . gram. .58 - —
Erigeron oil, crs. ..... lb. 11.00 - —
Ergot, NF, dms., tin-lined ..... lb. 1.00 - 1.25
Eserine salicylate, bots. ..... oz. 44.00 - —
Eserine sulfate, bots. ..... oz. 86.00 - —
Ester gum, gum-rosin type, dms., c.l., dlvd., Ill., Md., Ky., E. States, Minneapolis, N. C., Ohio, St. Louis, St. Paul, Va., W. Va . . lb. .18½- —
Wood-rosin type, dms., c.l., same basis . . lb. .18½- —
Ether (see specific product).
Ethyl acetate, nat., ferment, 85-88%, dms., c.l., dlvd . . lb. .15 - —
dms., l.c.l., dlvd. ..... lb. .16½- —
tanks, dlvd. ..... lb. .12½- —
95-98%, dms., c.l., dlvd. . . lb. .15¼- —
dms., l.c.l., dlvd. ..... lb. .16¾- —
tanks, dlvd. ..... lb. .12¾- —
Ethyl acetate, nat., ferment, 99%, dms., c.l., dlvd . . lb. .15½- —
dms., l.c.l., dlvd. ..... lb. .17 - —
tanks, dlvd. ..... lb. .13 - —
syn., 85-88%, dms., c.l., dlvd . . lb. .15 - —
dms., l.c.l., dlvd. ..... lb. .16½- —
tanks, dlvd. ..... lb. .12½- —
Ethyl acetate, syn., 95-98%, dms., c.l., dlvd . . lb. .15¼- —
dms., l.c.l., dlvd ..... lb. .16¾- —
tanks, dlvd. ..... lb. .12¾- —
99%, dms., c.l., dlvd. ..... lb. .15½- —
dms., l.c.l., dlvd. ..... lb. .17 - —
tanks. dlvd. ..... lb. .13 - —
Ethyl acetoacetate, dms., c.l., dlvd. lb. 58½- —
dms., l.c.l., dlvd. ..... lb. .60 - —
tanks, dlvd. ..... lb. .56 - —
Ethyl acrylate, dms., c.l., t.l., dlvd. lb. .36 - —
dms., l.t.l., dlvd. ..... lb. .37 - —
tanks, dlvd. ..... lb. .34 - —
Ethyl alcohol, 190 pf., USP, tax paid dms, c.l., dlvd. E. of Rockies . gal. 20.63 - —
dms., l.c.l., same basis . gal. 20.68 - 20.74
Ethyl alcohol, 190 pf., USP, tax-free, dms., c.l., dlvd. E. of Rockies . gal. .68 - —
dms., l.c.l., same basis . gal. .73 - .79
tanks, same basis ..... gal. .52 - —
Ethyl alcohol, absolute, 200 pf., tax paid, dms., dlvd. E. of Rockies . gal. 21.75 - —
dms., l.c.l., same basis . gal. 21.80 - 21.86
tanks, same basis ..... gal. 21.59 - —
Ethyl alcohol, denatured (see Denatured alcohol, ethyl).
Ethyl aminobenzoate, USP (see Benzocaine).
Ethyl amyl ketone, dms., c.l., dlvd. lb. .20 - —
dms., l.c.l., same basis ..... lb. .21½- —
tanks, same basis ..... lb. .17½- —
Ethy benzoate, bots. ..... lb. .75 - 1.00
Ethyl bromide, tech., 98%, dms., c.l., frt. alld. E . . lb. .43 - —
dms., l.c.l., frt. alid. E . . lb. .45 - —
tanks, frt. alid. E ..... lb. .41 - —
Ethyl butyl ketone, dms., c.l., t.l., works lb. .36 - —
dms., l.c.l., l.t.l., works ..... lb. .36¾- —
tanks, works ..... lb. .34 - —
Ethyl butyrate, dms., works ..... lb. .85 - 1.00
Ethyl carbamate (see Urethane).
Ethyl cellulose, vis. 7 cps., bgs., 5,000-lb. lots or more, frt. alld. E . . lb. .73 - —
bgs., smaller lots, frt. alld. E lb. .75 - —
Vis 10, 20, 50, 100, 150 cps., bgs., 5,000-lb. lots or more, frt. alld. E lb. .68 - —
bgs., smaller lots, frt. alld E. lb. .70 - —
Ethyl chloride, tech., cyls., works. lb. .20 - .22
dms., works ..... lb. .18 - .20
tanks, works ..... lb. .10 - —
Ethyl cinnamate crs. ..... lb. 3.35 - 3.50
Ethyl ethanolamies, mixed, dms., c.l., dlvd. E . . lb. .43½- —
dms., l.c.l., dlvd. E ..... lb. .44½- —
tanks, dlvd. E ..... lb. .41½- —
Ethyl ether, absolute, ACS, dms . lb. .27 - —
Anesthesia, USP, dealers, 1-lb. cns . lb. 1.01 - —
½-lb. cns ..... lb. 1.09 - —
¼-lb. cns. ..... lb. 1.21 - —
Indust., dms., c.l., dlvd. ..... lb. .13½- —
dms., l.c.l., dlvd. E. ..... lb. .15 - —
tanks, dlvd E. ..... lb. .11 - —
2-Ethyl hexoic acid, dms., c.l., t.l., dlvd. E lb. .37 - —
dms., l.c.l., t.l., dlvd. E..... lb. .38½- —
tanks, dlvd. E. ..... lb. .34½- —
2 Ethyl hexoic acid, 1c. higher W. of Rockies.
2-Ethyl hexyl acrylate, dms., c.l. t.l., straight or mixed frt. alld. E lb. .42½- —
dms., l.t.l., same basis ..... lb. .43½- —
tanks, same basis ..... lb. .40 - —
Prices of 2-ethylhexyl acrylate are 1½c. per lb. higher in Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
2-Ethylhexyl alcohol, dms., c.l., dlvd. lb. .23¾- —
dms., l.c.l. dlvd ..... lb. .25¼- —
tanks, dlvd. ..... lb. .21¼- —
Ethyl iodide, cbys., works ..... lb. 3.30 - —
Ethyl methacrylate, dms., c.l., frt. equald lb. .52 - —
dms., l.t.l., frt. equald ..... lb. .52½- —
tanks, frt. equald ..... lb. .50 - —
Ethyl morphine hydrochloride, USP, bots oz. 11.85 - —
Ethyl oenanthate, dms ..... lb. 1.05 - 1.30
Ethyl oxalate (see Diethyl oxalate).
Ethyl silicate, dist. (see Tetraethyl orthosilicate).
Ethyl silicate, 40% available SiO, dms., c.l., dlvd . lb. .44½- —
dms., l.c.l., dlvd ..... lb. .46 - —
tanks, dlvd ..... lb. .42 - —
N-Ethyl-a-naphthylamine, dms., works. lb. 1.02 - —
N-Ethyl-m-toluidine, tech., tic., tanks. frt. alid . lb. .83 - —
N-Ethyl-o-toluidide, bbls. ..... lb. .88 - —
Ethylamine (see Mono-, Di-, or Tri-)
N-Ethylaniline, dms., c.l., frt. alld. lb. .57 - —
dms., l.c.l., frt. alid ..... lb. .58 - —
tanks, frt. alid ..... lb. .55 - —

MONTROSE
CHEMICAL COMPANY

100 LISTER AVENUE
NEWARK, NEW JERSEY

Dimethyl Isophthalate

Trimethyl Borate — Trimethoxy Boroxine

T.C.P. — Tricresyl Phosphate

Mono Cresyl Diphenyl Phosphate

D.D.T. — Dichloro Diphenyl Trichloroethane

Ethyl Silicate 28% — 40%

D.D.V.P. — Dimethyl Dichloro Vinyl Phosphate
(Minimum 95% Purity)

EXCLUSIVE SALES AGENTS

R. W. GREEFF & CO., INC.
10 ROCKEFELLER PLAZA, NEW YORK 20, N. Y.
1721 TRIBUNE TOWER, CHICAGO, ILLINOIS

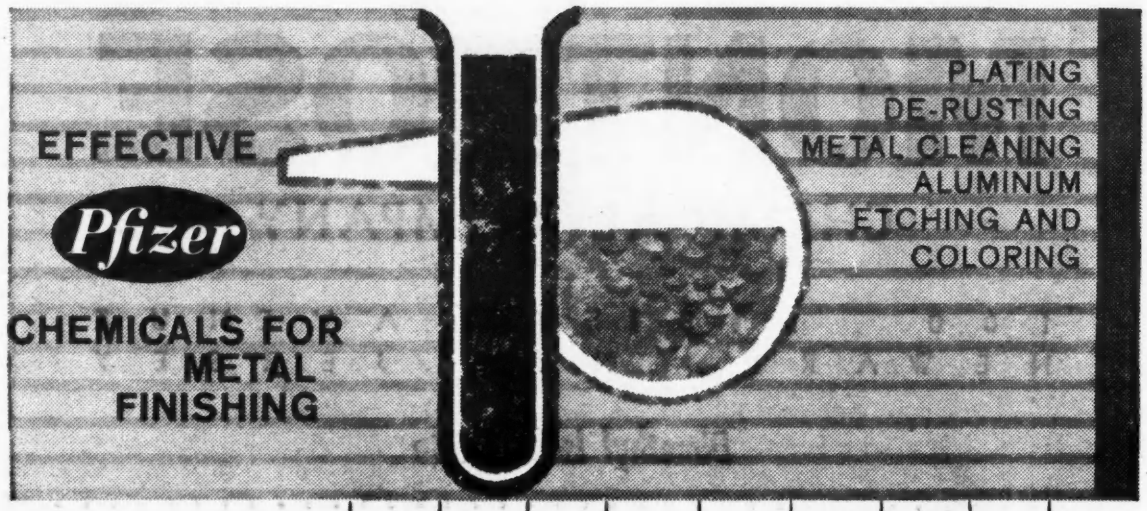
Ethylbenzene, 99%, dms., c.l., t.l., frt. equald lb. .15 - —
dms., l.c.l., same basis lb. .17 - —
tanks, same basis lb. .12½- —
2-Ethylbutyl alcohol, dms., c.l., works lb. .30 - —
dms., l.c.l., works lb. .30¾- —
tanks, works lb. .28 - —
Ethylene, contract, refy. gate lb. .0475- .0525
Ethylene dibromide, dms., c.l., frt. equald lb. .30½- —
dms., l.c.l., frt. equald lb. .31½- —
tanks, frt. equald lb. .28½- —
Ethylene dichloride, dms., c.l., divd. lb. .11½- —
dms., l.c.l., same basis lb. .13 - —
tanks, same basis lb. .09 - —
Ethylene dichloride prices W. of Rockies, 1c. per lb. higher.
Ethylene glycol, indust., dms., c.l., divd. E lb. .16 - —
dms., l.c.l., same basis lb. .17½- —
tanks, same basis lb. .13½- —
Ethylene glycol monobutyl ether, dms., c.l., divd. E lb. .22 - —
dms., l.c.l., divd. E lb. .23½- —
tanks, divd. E lb. .19½- —
Ethylene glycol monoethyl ether, dms., c.l., divd. E lb. .21 - —
dms., l.c.l., divd. E lb. .22½- —
tanks, divd. E lb. .18½- —
Ethylene glycol monoethyl ether acetate, dms., c.l., divd. E lb. .19½- —
dms., l.c.l., divd. E lb. .20½- —
tanks, divd. E lb. .17 - —
Ethylene glycol monomethyl ether, dms., c.l., divd. E lb. .21 - —
dms., l.c.l., divd. E lb. .22½- —
tanks, divd. E lb. .18½- —
Ethylene glycol monomethyl ether acetate, dms., c.l., divd. E lb. .29 - —
dms., l.c.l., divd. E lb. .29¾- —
tanks, divd. E lb. .27 - —
Ethylene glycol monostearate, triple pressed, dms lb. .33 - .35
Ethylene oxide, dms., c.l., divd. E. lb. .21½- —
dms., l.c.l., divd. E lb. .24½- —
tanks, divd. E lb. .15½- —
Ethylene trichloride (see Trichloroethylene).
Ethylenediamine, 85-88%, dms., c.l., divd. E., 100% basis lb. .42 - —
dms., l.c.l., divd. E., 100% basis lb. .43 - —
tanks, divd. E., 100% basis lb. .40 - —
Ethylvanillin, 100-lb. fib. dms., 500-lb. lots and over lb. 6.75 - —
200-lb. lots and over lb. 7.00 - —
100-lb. lots and smaller lb. 7.30 - 7.40
Eucalyptol, USP, cns., dms lb. .85 - 1.40
Eucalyptus oil, NF, rectified, 70-75%, dms lb. .44 - .55
NF, rectified, 80-85%, dms. lb. .53 - .62
Eugenol, tech., dms lb. 1.45 - —
USP, dms. lb. 2.10 - 2.80
Euphorbia herb, bls lb. .12 - .15

F

F salt, paste, tech. dms., works lb. 2.30 - —
Feldspar, 140-200 mesh, bulk, c.l., works ton.19.50 - —
Feldspar in bags $3 per ton higher.
Fennel oil, sweet, USP, cns lb. 2.25 - 2.70
Fennel seed, Argentine, bgs lb. .14 - —
French, light, bgs lb. .20 - —
Indian, light, bgs lb. .17 - —
Rumanian, bgs. lb. .14 - —
Yugoslav, light, bgs lb. .16½- —
Fenugreek seed, Moroccan, bgs lb. .07½- —
Ferric chloride, anhyd., tech., dms., c.l., works 100 lbs. 7.50 - —
dms., l.c.l., works 100 lbs. 8.50 - —
Indust., cryst., bbls., c.l., works, 100 lbs. 5.25 - 6.75
bbls., l.c.l., works 100 lbs. 5.75 - 7.25
42° Be., photo grade, cbys., c.l., works 100 lbs. 7.25 - 8.25
sewage grade, tanks, frt. equald, 100% basis 100 lbs. 4.00 - —
USP, cryst., dms., t.l., works lb. .08½- —
Ferric citrate, gran., dms lb. .86 - —
Ferric hypophosphite, NF, dms lb. 3.45 - —
Ferric naphthenate, liq., 6% Fe, dms., frt. alld lb. .28¼- —
Ferric oxalate, tech., gran., 50-lb. dm., f.o.b. works E lb. .89 - —
Ferric oxides (see iron oxides).
Ferric phosphate, NF, soluble, gran. pearls, cs. lb. .72 - .75
Ferric pyrophosphate, NF VII, soluble, gran., pearls, dms. lb. .70 - —
Ferric resinate, 6¾% Fe., dms., ton lots, frt. ald lb. .40¼- —
Ferric stearate, dms., c.l., frt. alld. lb. .39 - —
dms., l.c.l., frt. alld lb. .40 - .44
Ferric sulfate, partly hydrated, bgs., c.l., works ton.35.25 - —
bgs., l.c.l., works ton.36.25 - 42.25
bulk, c.l., works ton.33.25 - —
Ferric-ammonium citrate, brown, pearls, NF, gran., dms lb. .65 - .69
Green pearls, USP XII, gran., dms lb. .66 - .69
Ferric-ammonium oxalate, fine gran., dms lb. .27½- .29½
Ferric-potassium oxalate, fine gran., dms lb. .32½- .34½
Ferric-sodium oxalate, fine gran., dms lb. .27½- .29½
Ferrous gluconate, USP, 200-lb. dm., frt. equald lb. .96 - —
Ferrous sulfate, gran., bgs., c.l., works ton.34.50 - —
bgs., l.c.l., dlvd. Metropolitan area 100 lbs. 3.35 - 4.25
bbls., c.l., works ton.40.00 - —
bulk, c.l., works ton.27.00 - —
USP, cryst., bbls., dms lb. .09½- .10
Fir balsam, Canada, bbls gal.32.00 -35.00
Oregon, bbls. gal. 3.40 - 4.64
Fir oil, Canada, cns lb. 1.75 - 2.50
Fish oil, refd., alkali, dms lb. .1300- .1350
Kettle-bodied, dms. lb. .1530- .1580
Light-pressed, dms. lb. .1150- .1200
tanks lb. .10 - —
Fishliver oil, nat., high potency, 100,000 to 1,500,000 A units per gram, dms 1,000,000 units. .12 - —
Fishmeal, dom., menhaden, 60% protein, grd., bgs., Atlantic and Gulf coasts ton.100.00 - —
Fishscrap, dom., menhaden, dried, 60% protein, grd., bgs., Atlantic and Gulf coasts. ton.96.00 - —
Fleaseed (see Psyllium seed).
Folic acid, USP, bots., fib. dms., kilo lots or more gram. .30 - .44
10% feed grade, fib dms., 3 kilos or more kilo.30.00 -44.00
Formaldehyde, 37% (inhibited, 12 to 15% methanol), USP, dms., c.l., dlvd lb. .0695- —
tanks, dlvd. lb. .0430- —
Formaldehyde, methanol-free (uninhibited), tanks, dlvd lb. .0375- —
Formic acid, 85%, cbys., c.l., works. lb. .1570- —
cbys., l.c.l., works lb. .1620- .1720
90%, cbys., c.l., works lb. .1625- —
cbys., l.c.l., works lb. .1675- .1775
Fringetree bark, bls lb. .65 - .70
Fumaric acid, tech., 250-lb. dms., c.l., frt. equald lb. .22¾- —
dms., l.c.l., frt. equald lb. .24¼- —
Furfural, dms., c.l., works lb. .13 - —
dms., l.c.l., works lb. .14 - —
tanks, divd. E lb. .12 - —
tanks, divd. W lb. .13 - —
Furfuryl alcohol, cns., works lb. .28 - —
dms., c.l., t.l., Newark, N. J. lb. .20½- —
dms., l.c.l., l.t.l., Newark, N. J. lb. .21½- —
dms., c.l., t.l., Memphis, Tenn lb. .19 - —
dms., l.c.l., l.t.l., Memphis, Tenn. lb. .20 - —
tanks, Memphis, Tenn. lb. .175 - —
Fusel oil, refd., dms., c.l., divd. lb. .18 - —
dms., l.c.l., divd. lb. .19½- —
tanks, divd. lb. .15½- —

G

G salt, bbls., frt. alld., 100% basis lb. .73 - —
Gallic acid, NF, VII, bbls., 1,000-lb. lots lb. 2.00 - —
bbls., smaller lots lb. 2.02 - 2.22
Tech., bbls., 1,000-lb. lots lb. 1.78 - —
bbls., smaller lots lb. 1.80 - 2.00
Gamma acid, dry grd., bbls., frt. alld lb. 1.75 - —
Gammapicoline (see g-picoline).
Garlic oil, dom., bots. oz. 4.75 - 6.05
Imp., bots. oz. 4.50 - 5.00
Gaultheria oil (see Wintergreen oil).
Gelatin, edible, 75 AOAC test, bbls., c.l., dlvd lb. .55 - —
150 AOAC test, bbls., c.l., dlvd. lb. .64 - —
200 AOAC test, bbls., c.l., dlvd. lb. .70 - —
225 AOAC test, bbls., c.l., dlvd. lb. .74 - —
275 AOAC test, bbls., c.l., dlvd. lb. .82 - —
Gelsemium root, bls. lb. .30 - .35
Gentian root, bls. lb. .24 - —
Grd., bbls., bxs. lb. .30 - —
Powd., bbls., bxs. lb. .30 - —
Geraniol, extra, cns., dms. lb. 1.75 - 2.40
Soap grade, dms. lb. .90 - 1.75
Standard, cns., dms., lb. .90 - 1.75
Synthetic, dms. lb. 1.30 - —
Geranium oil, Algerian, cns lb.20.00 - —
Bourbon, cns. lb.22.00 -26.00
Geranium oil, Turkish (see Palmarosa oil).
Geranyl acetate, cns. lb. 1.90 - 2.70
Synthetic, dms. lb. 1.45 - —
Ginger oil, dist., bots. lb.11.50 -14.00
Ginger oleoresin, NF, from African root, bots lb. 4.25 - 5.00
NF, from Jamaican root, bots. lb. 7.75 - —
Ginger root, Cochin, bgs lb. .22 - —
Jamaican, No. 3, bgs lb. .26 - —
Nigerian, split, bgs lb. .14½- —
Sierra Leone, bgs lb. .22 - —
Glauber's salt (see Sodium sulfate).
Gluconic acid, tech., 50%, dms., c.l., t.l., frt. alld lb. .18 - —
dms., l.c.l., frt. alld. lb. .20½- —
tanks, frt. alld. lb. .13½- —
Glue, bone, extracted, dry bone, 86 jellygrams, bgs., c.l., dlvd. lb. .16 - —
131 jellygrams, bgs., c.l., same basis lb. .16½- —
164 jellygrams, bgs., c.l., same basis lb. .18½- —
191 jellygrams, bgs., c.l., same basis lb. .19½- —
222 jellygrams, bgs., c.l., same basis lb. .21 - —
Glue, bone, green, 40 jellygrams, bgs., c.l., same basis lb. .16 - —
86 jellygrams, bgs., c.l., same basis lb. .16 - —
115 jellygrams, bgs., c.l., same basis lb. .16½- —
133 jellygrams, bgs., c.l., same basis lb. .17½- —
164 jellygrams, bgs., c.l., same basis lb. .18½- —
180 jellygrams, bgs., c.l., same basis lb. .19½- —
200 jellygrams, bgs., c.l., same basis lb. .20½- —
Bone glue, l.c.l., prices 2c. higher.
Glue, hide, 70-94 jellygrams, bgs., c.l., dlvd lb. .18 - —
95-149, bgs., c.l., dlvd lb. .19 - —
122-149, bgs., c.l., dlvd lb. .20½- —
150-177, bgs., c.l., dlvd lb. .22½- —
178-206, bgs., c.l., dlvd lb. .25 - —
Glue, hide, 207-236, bgs., c.l., dlvd lb. .28 - —
237-266, bgs., c.l., dlvd lb. .30½- —
267-298, bgs., c.l., dlvd lb. .32½- —
299-330, bgs., c.l., dlvd lb. .34½- —
331-362, bgs., c.l., dlvd lb. .36½- —
363-394, bgs., c.l., dlvd lb. .38 - —
395-427, bgs., c.l., dlvd lb. .40 - —
428-460, bgs., c.l., dlvd lb. .42 - —
461-494, bgs., c.l., dlvd lb. .44 - —
495-529, bgs., c.l., dlvd lb. .46 - —
Hide glue, l.c.l., prices 2c. higher.



	Cleaning	Polishing	Pickling	Electroplating	Electropolishing	Non-Electrolytic Depositions	Electrolytic Oxidation	Etching	Gold Coloring of Aluminum
Citric Acid	✓	✓	✓	✓	✓	✓	✓	✓	
Sodium Citrate	✓	✓		✓		✓			
Ammonium Citrate	✓	✓	✓	✓					
Gluconic Acid	✓	✓	✓	✓				✓	
Glucono Delta Lactone	✓	✓	✓	✓				✓	
Sodium Gluconate	✓	✓		✓				✓	
Oxalic Acid	✓	✓	✓	✓	✓		✓	✓	
Ammonium Oxalate	✓	✓		✓					
Ferric Ammonium Oxalate									✓
Tartaric Acid	✓		✓	✓				✓	
Tartar Emetic				✓					
Rochelle Salt			✓	✓					
Cream of Tartar	✓			✓					

Citric Acid...
Nontoxic, mild, yet chemically active against scale and tarnish. Used extensively in the formulation of general metal cleaners and polishes, particularly household products.

Sodium Citrate...
A preferred ingredient in electroless nickel baths, resulting in a brighter plate. Also finds wide use in electroplating processes.

Ammonium Citrate...
Especially useful for the removal of rust in near neutral solutions. Extremely mild and safe to handle.

Gluconic Acid...
An excellent sequesterant in alkaline derusting solutions; provides rust-free, clean surface ready for further treatment. Also highly effective in aluminum etching and paint stripping compounds.

Oxalic Acid...
The most effective chemical for use in automobile radiator cleaners. Also finds wide use in electropolishing and as an ingredient in general metal cleaners.

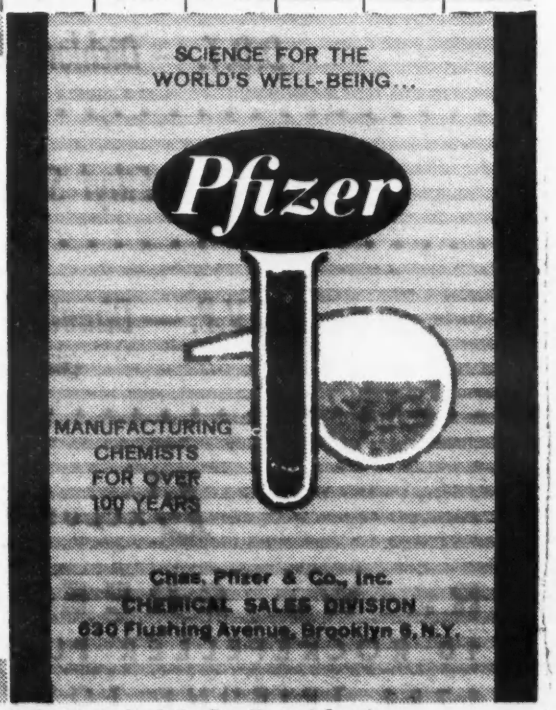
Ferric Ammonium Oxalate...
Used extensively in the production of light-fast gold colored aluminum.

Tartaric Acid...
Excellent complexing agent for copper in electroplating.

Tartar Emetic...
Used in electrolytic baths for deposition of silver and antimony alloys on brass, copper and steel surfaces.

Rochelle Salt...
Increases efficiency and yields finer-grain deposit in alkaline copper plating.

Cream of Tartar...
An excellent additive for brass cleaning compounds. Its crystalline structure acts as an effective abrasive in paste polishes. Chemically active against tarnish.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l-Glutamic acid, 99½%, fib. dms., 100-lb. lots, frt. alld.	lb.	1.80 - —
fib. dms., 25-lb. lots, frt. alld.	lb.	1.88 - —
l-Glutamine, bots., 1-9 kilo lots,	kilo.	150.00 -300.00
Bots., 50-kilo lots	kilo.	100.00 - —
Bots., 500-kilo lots	kilo.	75.00 - —
Glycerine, dom., nat., crude, saponification, 88%, tanks dlvd.	lb.	.21½- .21¾
nat., crude, soaplye, 80%, tanks, dlvd.	lb.	.19 - .19¼
nat., refd., USP, CP, 99%, dms., c.l., dlvd.	lb.	.30⅞- —
dms., l.c.l., dlvd.	lb.	.31⅝- —
tanks, dlvd.	lb.	.29½- —
Glycerine, dom., nat., refd., USP, CP, 96%, dms., c.l., dlvd.	lb.	.30 - —
dms., l.c.l., dlvd.	lb.	.30¾- —
tanks, dlvd.	lb.	.28¼- —
nat., high gravity, dms., c.l., dlvd.	lb.	.30¾- —
dms., l.c.l., dlvd.	lb.	.31½- —
tanks, dlvd.	lb.	.29 - —
Glycerine, dom., syn., dms., c.l., dlvd.	lb.	.31 - —
dms., l.c.l., dlvd.	lb.	.31¾- —
tanks, dlvd.	lb.	.29¼- —
Imp., nat., crude, soaplye, 80%, c.i.f.	lb.	.19 Nom.
Glycine (see Aminoacetic acid).		
Glycerol (see Glycerine).		
Glycolic acid (see Hydroxyacetic acid).		
Glycolonitrile, 70%, aqueous, dms., c.l., t.l., works	lb.	.40 - —
dms., l.c.l., same basis	lb.	.42 - —
tanks, same basis	lb.	.39 - —
Glyoxal, 30%, dms., c.l., works	lb.	.20½- —
dms., l.c.l., works	lb.	.21¼- —
tanks, works	lb.	.18 - —
Golden seal root, NF, tested, bls.	lb.	2.75 - 3.25
Gramicidin, 1 to 5 kilos, f.o.b. works,	gram.	4.70 - —
Grapefruit oil, dms.	lb.	3.00 - 3.50
Graphite, amorp., powd., bgs., fib. dms., ex whse.	lb.	.06 - .09½
Cryst., 88-90%, powd., bgs., fib. dms., ex whse.	lb.	.19 - .21¼
90-92%, powd., bgs., fib. dms., ex whse.	lb.	.21 - .24½
95-97%, powd., bgs., fib. dms., ex whse.	lb.	.29 - .31¼
Flake, No. 1, 90-95%, bgs., fib. dms., ex whse.	lb.	.29 .31
No. 2, 90-95%, bgs., fib. dms., ex whse.	lb.	.29 - .31
Grease, white, choice all hog, tanks, dlvd.	lb.	.06¾- .06⅞
Yellow, tanks, dlvd.	lb.	.05½- .05⅝
Grease oil, No. 1, dms., c.l.	lb.	.13¾ Nom.
dms., l.c.l.	lb.	.14¾ Nom.
Extra winter, strained, dms., c.l.	lb.	.16¼ Nom.
dms., l.c.l.	lb.	.17¼ Nom.
Prime, burning, dms., c.l.	lb.	.17¾ Nom.
dms., l.c.l.	lb.	.18¾ Nom.

GREEN PIGMENTS
Green pigment quotations are listed individually. For example, prices on Green, chrome, may be found in the C's under Chrome green.

Grindelia robusta herb, bls.	lb.	.40 - —
Guaiacol, NF, cryst., dms., tins	lb.	2.10 - 2.15
NF, liq., cbys., dms.	lb.	2.30 - 2.40
Guaiacol carbonate, NF VII, dms	lb.	3.40 - 3.45
Guaiacwood oil, cns.	lb.	.75 - 1.30
Guar gum, food grade, bgs., c.l.	lb.	.38 - —
bgs., 5,000 lbs or more	lb.	.39 - —
Indust., bgs., c.l.	lb.	.32 - —
Tech grade, bgs.	lb.	.30 - .33

GUMS
Gum quotations are listed individually. For example, prices on Gum, Dammar, may be found in the D's under Dammar gum.

Gypsum, plaster of Paris, 100-lb. paper bgs., trucks, dlvd.		
New York	ton.	20.30 - —
Terra alba, dom., 100-lb. paper bgs., trucks, same basis.	ton.	20.00 - —
100 lb. paper bgs., trucks, works, New York	ton.	17.00 - —
Terra alba, imp., English, 100-lb. paper bgs., l.c.l., ex dock, New York	ton.	55.00 - —
100-lb. paper bgs., ex whse.	ton.	60.00 -62.00

H

H acid, dry, bbls., c.l., frt. alld., 100% basis	lb.	.96 - —
bbls., l.c.l., same basis	lb.	.95 - —
Hansa yellow, 10 G, bbls., dlvd. E. of Rockies	lb.	2.45 - —
Hansa G yellow, pigment, bbls.	lb.	2.20 - —
Hawthorn berries, bgs.	lb.	.18 - .20
Heliotropin, 100-lb. lots, dms.	lb.	2.60 - 3.40
Hellebore root, dom., green, bls.	lb.	.70 - .75
Helonias root, bls.	lb.	1.50 - —
Hemlock oil, cns.	lb.	2.55 - 3.00
Henbane leaves, bls.	lb.	.35 - .40
Heptachlor, dms., c.l., t.l., frt. alld., 100% basis	lb.	.96 - —
Heptane, indust., tankcars, New Jersey and New York	gal.	.20 - —
Houston, Texas	gal.	.1625- —
Hesperidin, purif., 100-lb. fib. dms., f.o.b., works	lb.	8.95 - —
Hesperidin methylchalcone, bots., 50-lb. lots, works	lb.	22.50 - —
bots., 5-lb. lots, works	lb.	23.00 - —
bots., 1-lb. lots, works	lb.	23.50 - —
Hexachlorophene, dms., 1,100 lbs. or more	lb.	1.84 - —
dms., to 1,100 lbs.	lb.	1.94 - —
Hexalin (see Cyclohexanol).		
Hexamethylenetetramine, tech., bgs., 20,000-lb. lots or more, Perth Amboy or New York City	lb.	.233 - —
bgs., 1,000-19,999-lb. lots, same basis	lb.	.243 - —
bgs., smaller lots, same basis	lb.	.253 - —
fib. dms., 1,000-lb. lots or more, same basis	lb.	.250 - —
fib. dms., smaller lots, same basis	lb.	.253 - —
Hexamethylenetetramine, USP, bgs., 500 lbs. or more, f.o.b. Fords, N. J., dlvd. New York City and Philadelphia	lb.	.42½- —
bgs., smaller lots, same basis	lb.	.43½- .48½
Hexane, industrial, tankcars, New Jersey and New York	gal.	.20 - —
Houston, Texas	gal.	.16 - —
l-Hexanol, dms., c.l., works	lb.	.35 - —
dms., l.c.l., works	lb.	.35¾- —
tanks, works	lb.	.33 - —
Hexyl cinnamic aldehyde, dms.	lb.	4.00 - 7.50
n-Hexyl methacrylate, dms., c.l., works	lb.	.75½- —
dms., l.c.l., works	lb.	.76 - —
Hexyl salicylate, dms.	lb.	1.75 - —
Hexylene glycol, dms., c.l., dlvd.	lb.	.17½- —
dms., l.c.l., dlvd.	lb.	.19 - —
tanks, dlvd.	lb.	.15 - —
Hexylresorcinol, USP, dms., 25-lb. lots or more, dlvd.	lb.	14.00 - —
dms., smaller lots, dlvd.	lb.	14.50 - —
Homatropine hydrobromide, USP, bots.	oz.	3.35 - —
Homatropine methylbromide, USP, bots.	oz.	3.25 - —
Hoofmeal, 17-18% ammonia, bulk, c.l., Chicago	unit-ton.	6.75 - —
Horehound herb, bls.	lb.	.18 - .20
Hydrastis (see Goldenseal).		
Hydrazine hydrate, 85% ret. dms., works	lb.	1.35 - 1.55
100%, ret. dms., works	lb.	1.60 - 1.90
Hydriodic acid, purif., 47%, 2-cbys., f.o.b. works	lb.	2.92 - —
Hydroabietyl alcohol, tech., solid, dms., c.l., dlvd. zone 1	lb.	.29¼- —
dms., l.c.l., dlvd. zone 1	lb.	.29¾- .30¼
tanks, dlvd. zone 1	lb.	.27¼- —
Zone 1 for hydroabieyl alcohol comprises all of continental US except Ariz., Calif., Colo., Idaho, Mont., Nev., N. M., Ore., Utah, Wash., Wyo., and the western part of Texas.		
Hydrobromic acid, medicinal, 48%, cbys., frt. equald	lb.	.48 - .56
Hydrochloric acid, anhyd. (see Hydrogen chloride).		
Hydrochloric acid, 18°, cbys., c.l., works	100 lbs.	2.50 - —
cbys., l.c.l., dlvd. Metropolitan area	100 lbs.	2.90 - 3.05
tanks, works, frt. equald	ton.	28.00 - —
20°, cbys., c.l., works	100 lbs.	2.75 - —
cbys., l.c.l., dlvd. Metropolitan area	100 lbs.	3.15 - —
tanks, works, frt. equald	ton.	30.00 - —
Hydrochloric acid, 22°, cbys., c.l., works	100 lbs.	3.25 - —
cbys., l.c.l., dlvd. Metropolitan area	100 lbs.	3.65 - —
tanks, works, frt. equald	ton.	35.00 - —
Hydrochloric acid, CP, USP, consumers, cbys., extra, c.l., works	lb.	.15¾- —
cbys., l.c.l., same basis	lb.	.17¼- .17¾
Hydrochloric acid, 5-pint bots., extra cs., c.l., same basis.	lb.	.20¼- —
Hydrocortisone acetate, bulk, bots., kilo lots or more	gram.	1.10 - 1.90
Hydrocortisone alcohol, bulk, bots., kilo lots or more	gram.	1.10 - 1.90
Hydrocyanic acid, dilute, NF, 2%, 5-pt. bots., f.o.b. works	pt.	.70 - —
Hydrofluoric acid, anhyd. (see Hydrogen fluoride).		
Hydrofluoric acid, aqueous, 70%, 55-gal. or 30-gal. dms., c.l., t.l., dlvd.	100 lbs.	19.25 - —
55-gal. dms., l.c.l., l.t.l., dlvd.	100 lbs.	20.75 - —
20-gal. dms., c.l., t.l., dlvd.	100 lbs.	21.00 - —
20-gal. dms., l.c.l., l.t.l., dlvd.	100 lbs.	22.50 - —
tanks, works frt. equald	100 lbs.	13.40 - —
Delivered prices apply to all states east of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Washington and Wyoming. In those states add $2.70 per cwt. for drum delivery.		
Hydrofluosilicic acid, dms., works, 30% basis	lb.	.06 - —
Hydrofuramide, dms., fib. ctns., works	lb.	.30 - .40
50-lb. cyls., l.c.l., works	lb.	.55 - .60
Hydrogen chloride, anhyd., 50-lb. cyls., l.c.l., works	lb.	.45 - —
Hydrogen cyanide, liq., 98%, tanks, works	lb.	.14 - —
Hydrogen fluoride, anhyd., cyls., dlvd. E.	lb.	.30½- .32½
cyls., dlvd. W.	lb.	.39 - —
tanks, works	lb.	.18 - —
Hydrogen peroxide, 35%, dms., c.l., dlvd.	lb.	.202 - —
dms., l.c.l., dlvd.	lb.	.211 - —
tanks, dlvd.	lb.	.1800- —
Hydroquinone, photo grade, dms., 50-lbs., f.o.b. works	lb.	1.10 - —
Tech., dms., c.l., dlvd.	lb.	.82½- —
dms., l.c.l., dlvd.	lb.	.84½- —
Hydroquinone monomethyl ether, dms., t.l., dlvd	lb.	2.59 - —
dms., l.t.l., dlvd.	lb.	2.61 - —
Hydroxyacetic acid, tech., 70% dms., Philadelphia and Chicago	lb.	.11 - —
tanks, Belle, W. Va.	lb.	.073 - —
Hydroxycitronellol, cns.	lb.	4.85 - 5.75
Hydroxyethyl cellulose, add grades, fib. dms., 20,000-lb. lots or more, f.o.b. shipping point	lb.	.84 - —
fib. dms., 2,000 to 19,999-lb. lots, same basis	lb.	.89 - —
fib. dms., 100 to 1,999-lb. lots, same basis	lb.	.93 - —
fib dms., smaller lots, same basis	lb.	1.03 - —
Hyoscine salts (see Scopolamine).		
Hyoscyamine hydrobromide, bots.	oz.	7.00 - —

Hydrobromic Acid

HBr 48% 62% HBr

Can help you make drugs, dyes, fluxes, perfumes, photo chemicals

Check these useful reactions: Hydrobromic acid is a strong acid which reacts readily with most inorganic bases to produce inorganic bromides such as lithium, sodium, potassium and ammonium bromide, useful in photographic processes.

It reacts with many aliphatic alcohols in the presence of dehydrating agents to produce aliphatic bromides. Aliphatic bromides, which are generally more reactive than the corresponding chlorides, are useful in the preparation of Grignard reagents and other organometallic bromides, quaternary ammonium salts and as alkylating agents.

Hydrobromic acid can be used to cleave ethers to produce aliphatic alcohol and bromide. It will also react with epoxides to produce vicinal bromohydrins with two reactive centers, thus, permitting many additional reactive possibilities.

Ask for our help: Michigan Chemical produces 48% Technical Grade Hydrobromic Acid and is the sole producer of 62% Technical Grade Hydrobromic Acid in commercial quantities. Our wide experience in bromine and bromine derivatives is immediately available to you through our Technical Service Group. Our plants in Saint Louis, Michigan and El Dorado, Arkansas provide dependable sources for high purity bromine chemicals in constant supply—up to tank car quantities, if desired. Write us about your area of interest or for technical data and prices.

Analysis	48% Technical
Molecular Weight	80.924
Specific Gravity at 20/4° C.	1.488
Pounds a gallon at 20° C.	12.4
HCl, not more than	0.10%
Vapor Pressure at 30° C.	——
Vapor Pressure at 50° C.	——

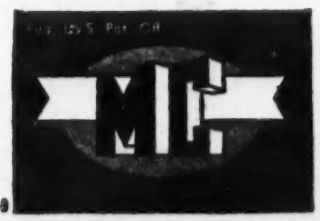
Analysis	62% Technical
Molecular Weight	80.924
Specific Gravity at 20/4° C.	1.74
Pounds a gallon at 20° C.	14.5
HCl, not more than	0.15%
Vapor Pressure at 30° C.	85 mm
Vapor Pressure at 50° C.	380 mm

For complete listing of Michigan Chemical products, see your copy of Chemical Materials Catalog or Chemical Week Buyers Guide.

MICHIGAN CHEMICAL CORPORATION

630 North Bankson Street, Saint Louis, Michigan

EASTERN SALES OFFICE: 230 Park Avenue, New York 17, N.Y.



C-58-8

Hyoscyamine sulfate, bots. ..... oz. 7.00 - —
Hypophosphorous acid, purif., 50%, 10-cbys., f.o.b. works ... lb. 1.95 - —
NF, 50%, 10-cbys., same basis ... lb. 1.35 - —

I

Ichthammol, NF, dms. ..... lb. .75 - 1.05
Indigo (see Dyes, coaltar, 1171 indigo, syn.).
Indole, CP, bots. ..... lb. 14.75 -18.25
Inositol, bots., dlvd. ..... lb. 5.00 - —
dms., dlvd. ..... lb. 4.50 - 4.75
Insect flowers (see Pyrethrum).
Iodine, crude, kgs. ..... lb. .95 - —
Resub., USP, dms., f.o.b. works lb. 2.00 - 2.02
Iodochlorohydroquinolin, USP, dms. lb. 3.60 - —
Iodoform, NF, dms., 300-lbs., f.o.b. works ... lb. 4.90 - —
dms., 100-lbs., same basis ... lb. 5.05 - —
a-Ionone, cns. ..... lb. 4.60 - 5.75
b-Ionone, cns. ..... lb. 4.15 - 6.15
Ipecac root, whole, bgs. ..... lb. 8.00 - 8.50
Powd., bbls., bxs. ..... lb. 9.50 -10.00
Irish moss, bleached, prime, bls. lb. .20 - .23
Iron blue, alkali-resisting, bbls., c.l., dlvd. E lb. .57 - —
bbls., l.c.l., ton lots, same basis. lb. .58 - —
bbls., smaller lots, same basis lb. .59 - —
Dom., reg., bbls., c.l., dlvd. E .. lb. .52 - —
Iron blue, alkali-resisting, dom., reg., bbls., l.c.l., ton lots, same basis .. lb. .53 - —
bbls., l.c.l., smaller lots, same basis lb. .54 - —
Imp., British, reg., bbls., c.l., dlvd. E .. lb. .48 - —
bbls., l.c.l., ton lots, same basis .. lb. .49 - —
bbls., l.c.l., smaller lots, same basis .. lb. .50 - —
Iron blue dlvd. prices 1c. higher for Pacific Coast states: Wash., Ore., Cal., N. M., Ariz., Mont., Wyo., Utah, Col. and Nev.
Iron compounds (see Ferric or Ferrous).
Iron oxide, black, pure, bgs., c.l., works .. lb. .14¾- —
bgs., l.c.l., works ..... lb. .15 - —
Iron oxide, brown, pure, bgs., c.l., works .. lb. .14¼- —
bgs., l.c.l., works ..... lb. .14½- —
Iron oxide, metallic, brown, bgs., works .. lb. .05¼- —
Iron oxide, Persian Gulf, red., bgs., c.l., works .. lb. .08¾- —
Iron oxide, red, dom., pure, bgs., Bethlehem, East, E. St. Louis, New York City .. lb. .14¼- —
Iron oxide, red, nat., 75-85% ferric oxide, bgs., c.l., works .. lb. .06½- —
bgs., l.c.l., works ..... lb. .06½- —
Iron oxide, Spanish red, bbls., c.l., ex dock .. lb. .05¾ Nom.
bbls., l.c.l., ex dock ..... lb. .06 Nom.
bbls., l.c.l., ex whse, New York. lb. .06½ Nom.
Iron oxide, yellow, nat., French type, bgs., c.l., works .. lb. .08¾- —
Peruvian type, bgs., l.c.l. .. lb. .023 - .024
Iron oxide, yellow, pure, light lemon shade, bgs., c.l., works .. lb. .12¼- —
Other shades, same basis .. lb. .12 - —
Isoamyl alcohol, dms., c.l., works, frt. alld E .. lb. .27½- —
dms., l.c.l., same basis ..... lb. .29 - —
tanks, same basis ..... lb. .25 - —
Isoborneol, cns. ..... lb. 1.44 - 1.80
Isobornyl acetate, cns. ..... lb. .46 - .56
Isobornyl formate, dms. ..... lb. 1.20 - —
Isobornyl proprionate, dms. ..... lb. 1.25 - 1.35
Isobutyl acetate, perfume grade, cns. .. lb. .35 - —
Isobutyl acetate, solvent grade, dms., c.l., dlvd. E of Rockies .. lb. .15¼- —
dms., l.c.l., same basis ..... lb. .16¾- —
tanks, same basis ..... lb. .12¾- —
Isobutyl alcohol, dms., c.l., dlvd lb. .15½- —
dms., l.c.l., dlvd. ..... lb. .17 - —
tanks, dlvd. ..... lb. .13 - —
Isobutylene, 99%, tanks, works gal. .38 - —
Isobutyl isobutyrate, dms., f.o.b. works .. lb. .75 - —
Isobutyraldehyde, CP, dms., c.l., dlvd .. lb. .27½- —
dms., l.c.l., dlvd. ..... lb. .28½- —
Tech., dms., c.l., dlvd. ..... lb. .22 - —
dms., l.c.l., dlvd. ..... lb. .23 - —
tanks, dlvd. ..... lb. .19½- —
Isobutyronitrile, dms., c.l., dlvd .. lb. .52 - —
dms., l.c.l., same basis ..... lb. .57 - —
Isobutyric acid, dms., c.l., t.l., dlvd. lb. .35 - —
dms., l.c.l., l.t.l., same basis .. lb. .36½- —
t.c. t.t., same basis ..... lb. .33 - —
Isoeugenol, cns. ..... lb. 3.40 - 4.25
Isoniazid, powd., bulk, kilo or more kilo. 18.00 - —
Isonicotinic acid, 100-lb. fib. dms., works .. lb. 4.25 - —
Isonicotinic acid hydrazide (see Isoniazid).
Iso-octyl alcohol, dms., c.l., dlvd. E. lb. .23½- —
dms., l.c.l., dlvd. E. ..... lb. .25 - —
tanks, dlvd. E. ..... lb. .21 - —
Isopentane, com'l. grade, tanks, f.o.b. Tex. refy. gal. .15½- —
Isophorone, dms., c.l., works .... lb. .24½- —
dms., l.c.l., works ..... lb. .25¼- —
tanks, works ..... lb. .22½- —
Isophthalic acid, dms., c.l., works, frt. equald .. lb. .18 - —
dms., l.c.l., same basis ..... lb. .19 - —
Isopropanol (see Isopropyl alcohol).
Isopropyl acetate, dms., c.l., dlvd. lb. .14 - —
dms., l.c.l., same basis ..... lb. .15½- —
tanks, same basis ..... lb. .11½- —
Isopropyl alcohol, refd., 91%, dms., c.l., dlvd .. gal. .58 - —
dms., l.c.l., dlvd. ..... gal. .68 - —
tanks, dlvd. ..... gal. .42 - —
Isopropyl alcohol, refd., 95%, c.l., dms., dlvd .. gal. .60 - —
dms., l.c.l., dlvd. ..... gal. .70 - —
tanks, dlvd. ..... gal. .44 - —
anhyd., c.l., dlvd. ..... gal. .62 - —
dms., l.c.l., dlvd. ..... gal. .72 - —
tanks, dlvd. ..... gal. .46 - —
Isopropyl benzene (see Cumene).
Isopropyl ether, dms., c.l., dlvd lb. .09½- —
dms., l.c.l., dlvd. ..... lb. .11 - —
tanks, dlvd. ..... lb. .07 - —
Isopropyl-N-(3-chlorophenyl) carbamate (CIPC) tech., dms., c.l., t.l., works .. lb. 1.00 - —
dms., l.c.l., works ..... lb. 1.05 - 1.25
tanks, works ..... lb. .99 - —
Isopropylamine (see Mono, Di, or Tri-).
Isopropyl-N-phenyl carbamate, 450-lb. fib. dms., c.l., t.l., works .. lb. .75 - —
450-lb. fib. dms., l.c.l., works .. lb. .80 - .90
Isoquinoline, dms., works ..... lb. .65 - 1.25
Itaconic acid, refd., bgs., c.l., f.o.b. works .. lb. .53½- —
bgs., l.c.l., same basis ..... lb. .54½- —
Tech., bgs., c.l., same basis .. lb. .36½- —
bgs., l.c.l., same basis ..... lb. .39½- —

J

J acid, paste, bbls., works, 100% basis .. lb. 2.70 - —
Powd., bbls., same basis ..... lb. 2.75 - —
Jalap root, NF, bls. ..... lb. .60 - —
NF, powd., bbls., bxs. ..... lb. .70 - .75
Japan wax, cs. ..... lb. .27 - .29
Juniper berries, bgs. ..... lb. .16 - .17
Juniper berry oil, NF, bots. .... lb. 2.90 - 3.75
Twice rectified, bots. ..... lb. 3.25 - —
Juniper tar oil, NF, dms. ..... lb. .42 - .60
Juniper wood oil, tech., cns. .... lb. .38 - .55

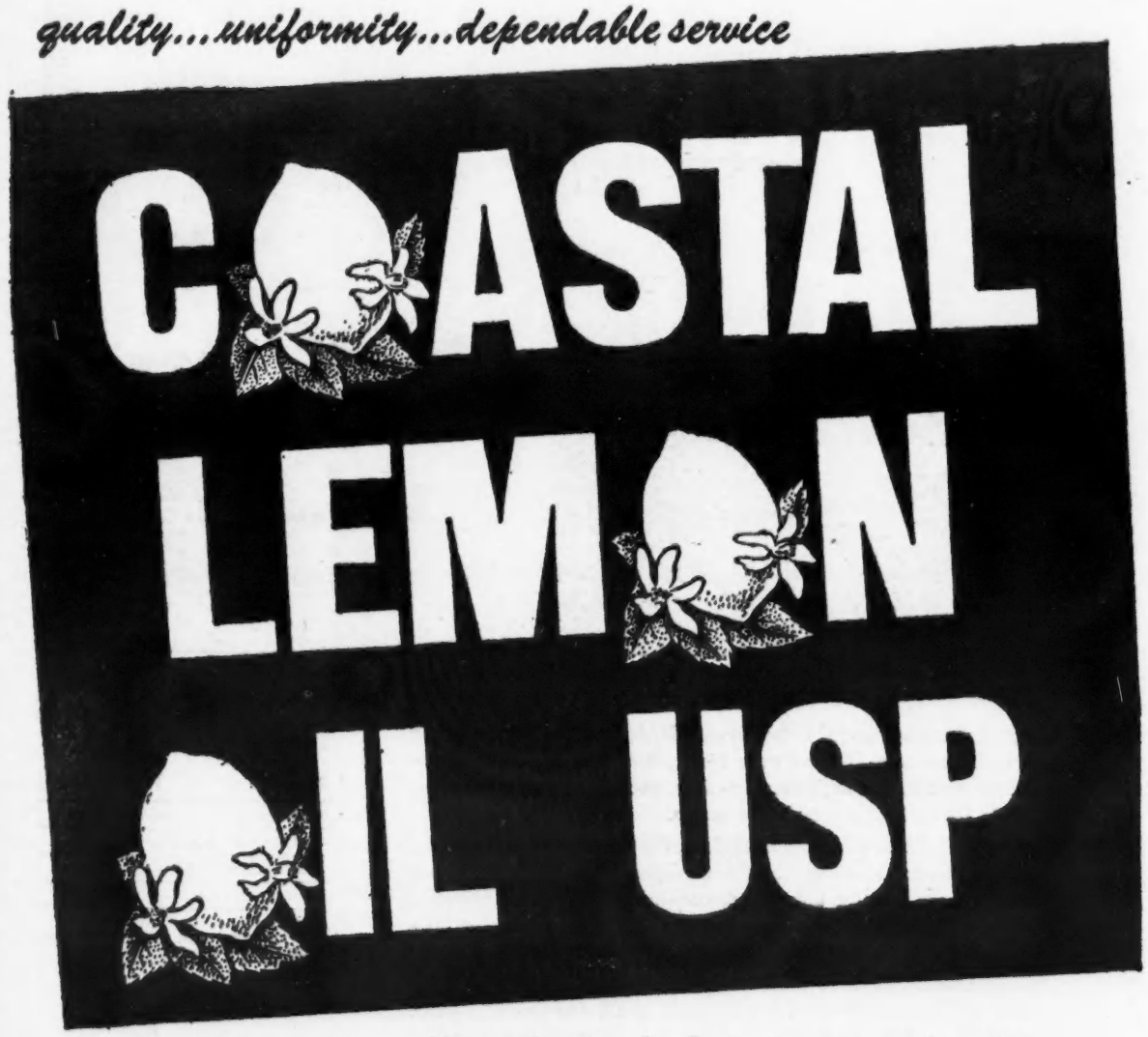
K

Kaolin (see also Clay, China).
Kaolin, NF, powd., fib. dms ..... lb. .10 - .12
NF, colloidal, 50-lb. bgs. ..... lb. .15½- .17¼
Karaya gum, No. 1, NF, powd., bls .. lb. .46 - .50
No. 2, powd., bbls. ..... lb. .43 - .45
No. 3, powd., bbls. ..... lb. .37 - .40
Koch acid, bbls., frt. alld., 100% basis .. lb. 1.00 - —
Kola nuts, bgs. ..... lb. .13 - .15

L

L acid, bbls., works ..... lb. 1.25 - —
Lacquer diluent, petroleum, 140°F. 200°F. b.r., tankcars, New Jersey and New York gal. .20 - —
Group 3 ..... gal. .15125- —
Houston, Texas ..... gal. .16 - —
200°F-240°F b.r., tankcars, New Jersey or New York .. gal. .20 - —
Group 3 ..... gal. .14125- —
Houston, Texas ..... gal. .16 - —
Lactic acid, edible, 50%, bbls. dms., c.l., frt. equald ..... lb. .1985- —
bbls., dms., 20 or more, frt. equald .. lb. .2035- —
bbls., dms., 5 to 19, frt. equald. lb. .2085- —
bbls., dms., 1 to 4, frt. equald. lb. .2135- —
80%, bbls., c.l., dms., frt. equald .. lb. .3335- —
bbls., dms., 20 or more, frt. equald .. lb. .3385- —
bbls., dms., 5 to 19, frt. equald. lb. .3435- —
bbls., dms., 1 to 4, frt. equald. lb. .3485- —
Plastic grade, 50%, c.l., bbls., works .. lb. .2740- —
bbls., 20 or more, works .. lb. .2790- —
bbls., 5 to 19, works ..... lb. .2840- —
bbls., 1 to 4, works ..... lb. .2890- —
80%, bbls., c.l., works .... lb. .4625- —
bbls., 5 to 19, works ..... lb. .4725- —
bbls., 1 to 4, works ..... lb. .4775- —
Tech., 44%, bbls., c.l., works. 100 lbs. 12.45 - —
bbls., l.c.l., works .... 100 lbs. 12.85 - —
USP, 85%, cbys. ..... lb. .85 - —
Lactose, crystalline, edible, bgs., 23,000-lb. lots, frt. equald lb. .14 - —
bgs., 6,000-lb. lots, frt. equald lb. .14¼- —
bgs., 2,000-lb. lots, frt. equald lb. .14¾- —
bgs., 200-lb. lots, frt. equald .. lb. .15¼- —
Edible lactose in fib. dms., ½c. higher.
Lactose, ferment. grade, bgs., c.l., works .. lb. .08½- —
Lactose, USP, reg., fib. dms., 30,000-lb. lots, frt. equald .. lb. .21½- —
fib. dms., 2,000-lb. lots, frt. equald .. lb. .22¼- —
200-1,880-lb. lots, frt. equald .. lb. .22¾- —
USP lactose in bags ½c. to 1c. lower.
USP, spray dried, bgs., t.l., frt. equald .. lb. .18½- —
bgs., l.t.l., frt. equald .... lb. .19 - .19¾
Lady's slipper root, bls ..... lb. 3.00 - 3.50
Lamp black, bgs., c.l., works .... lb. .16 - .45
Lanolin, USP, anhyd., 400-lb. dms., works .. lb. .24 - .26
USP, anhyd., cosmetic, 400-lb. dms., works .. lb. .26 - .30
USP, hydrous, 400-lb. dms., works. lb. .24 - —
Lard, cash, dms., Chicago ..... lb. .09½- —
Lard oil (see Grease oil).
Larkspur seed, bgs. ..... lb. .55 - —
Laurel leaf oil, dms., cns. ..... lb. 9.75 -12.50
Laurent's acid, bbls ..... lb. .70 - —
Lauric acid, pure, dms ..... lb. .35½- —
tanks ..... lb. .34½- —
Lauryl alcohol, bots ..... lb. 2.00 - 2.50
n-Lauryl methacrylate, dms., c.l., t.l., works .. lb. .65¼- —
dms., l.t.l., works ..... lb. .66 - —

quality...uniformity...dependable service



PURE California cold pressed lemon oil produced under continuous scientific quality control . . . bulk blended for uniformity, from desert and coastal grown lemons . . . packaged in tamper-proof containers for your protection . . . and priced to save you money. Our research and laboratory facilities have helped many users with product improvement and cost reduction...perhaps we can help you.

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Ventura Processors, 2325 Vista Del Mar Drive, Ventura, California

Lavandin oil, 22-24%, dms. ....lb. 1.10 - 1.50
Abrial, dms. ....lb. 1.00 - 1.50
Lavender flowers, medium, bls. lb. .55 - .60
Ord., bls. ....lb. .20 - .25
Select., bls. ....lb. .90 - 1.00
Lavender flower oil, USP, French, 35-37% ester, cns. lb. 1.85 - 4.00
40-42% ester, cns. ....lb. 5.00 - 7.75
Spike, Spanish, cns. ....lb. 2.20 - 3.00
Lead acetate, NF, cryst., gran., powd., bbls. lb. .34½- —
White, cryst., bbls. ....lb. .25½- —
gran., bbls. ....lb. .25½- —
powd., bbls. ....lb. .26½- —
Lead arsenate, acid powder, dealers, 3-50-lb. bgs. or any quantity, frt. alld. on $150 or more lb. .30½- —
1-lb. bgs., same basis lb. .47 - —
Lead, blue, basic sulfate, bbls., c.l., shipt. point, frt. alld lb. .17 - —
bbls., l.c.l., same basis ....lb. .18 - —
Lead carbonate (see Lead, white, basic carbonate).
Lead chloride, dms. ....lb. .52 - —
Lead iodide, NF, V jars ....lb. 3.82 - —
Lead linoleate fused, 26% Pb, dms. lb. .38 - —
Lead metal prime, pigs, New York. lb. .12 - —
St. Louis ....lb. .1180- —
Lead monosilicate, bgs., c.l., works, frt. equald lb. .1385- —
bgs., l.c.l., same basis ....lb. .1485- —
Lead naphthenate, liq., 16% Pb., dms., dlvd lb. .19½- —
24% Pb., dms., dlvd. ....lb. .24¼- —
Solid, 37% Pb., dms., dlvd. ....lb. .31⅝- —
Lead nitrate, bbls. ....lb. .24¼- .26¾
Lead orthosilicate gel., 50-60% PbO, dms., works lb. .29¾- .34¼
Lead peroxide, tech. powd., bbls lb. .45 - .50
Lead phthalate, dibasic, dms., works. lb. .41 - —
Lead, red, 95% Pb_3O_4 or less, bbls., c.l., works, frt. equald. lb. .1425- —
bbls., l.c.l., same basis lb. .1525- —
97% Pb_3O_4, bbls., c.l., same basis lb. .1445- —
bbls., l.c.l., same basis ....lb. .1545- —
98% Pb_3O_4, bbls., c.l., same basis lb. .1460- —
bbls., l.c.l., same basis ....lb. .1560- —
Lead resinate precip. 23% Pb. dms., ton lots, dlvd lb. .43¾- —
Lead salicylate, normal dms., works lb. .46 - —
Lead silicate (see Lead white basic silicate).
Lead silicochromate, bgs., c.l., f.o.b. mfrs. point, frt. alld. lb. .20 - —
bgs., l.c.l., same basis ....lb. .21 - —
Lead sulfate (see Lead blue basic sulfate).
Lead tallate, liq., 16% Pb, dms. lb. .17¼- —
24% Pb, dms. ....lb. .26¾- —
Solid, 30% Pb. dms. ....lb. .23¼- —
Lead, white, basic carbonate, bgs., c.l., shipt. pt., frt. alld lb. .18 - —
bgs., l.c.l., same basis ....lb. .19 - —
basic silicate, bgs., c.l., shipt. pt., frt. alld. lb. .16½- —
bgs., l.c.l., same basis ....lb. .17½- —
basic silicate, bgs., c.l., shipt. pt., frt. alld lb. .17 - —
bgs., l.c.l., same basis ....lb. .18 - —
Lecithin, edible, tech., bleached, non-ret. dms., c.l., works. lb. .14 - .15
non-ret. dms., l.c.l., same basis lb. .15 - .16
Lecithin, edible, tech., unbleached, non-ret. dms., c.l., same basis lb. .13 - .14
non-ret. dms., l.c.l., same basis lb. .14 - .15
Lemon bioflavonoid complex, 100-lb. package, works lb. 6.45 - —
Lemon oil, USP, Calif., cns., dms. lb. 1.40 - 1.50
Messina, cns. ....lb. 3.25 - 4.00
Lemongrass oil, cns., dms. ....lb. 2.20 - 2.55
dl-Leucine, dms., works ....lb. 12.25 -15.00
Licorice root, gran., bls. ....lb. .13 - —
Powd., bls. ....lb. .15 - .16
Whole, bls. ....lb. .09 - .10
Lignaloe wood oil, Mexican, cns. lb. 2.75 - 3.50
Lignosulfonate (see under Ammonium or Sodium lignin sulfonate).
Lime, chemical (quicklime), bulk, c.l., 50,000 lbs., works, E. ton 14.25 - —
Chemical, hydrated, bgs., c.l., same basis ton 17.25 - —
spray, bgs., c.l., same basis ton 18.25 - —
For New York delivery, add $6.29 freight charge.
Lime oil, dist., Mexican, cns. ....lb. 5.90 - 6.75
West Indian, cns. ....lb. 6.50 - 7.80
Expressed, West Indian, cns. ....lb. 7.75 - 8.75
Lime salts (see Calcium).
Lime-ammonium nitrogen, 20.5% N (see Ammonium nitrate with dolomite).
Linalool, ex bois de rose oil, dms. lb. 2.75 - 3.75
Syn., 98-100%, dms., works ....lb. 3.20 - —
Linalyl acetate, ex bois de rose, 90-92%, dms. lb. 2.75 - 3.40
96-98%, dms. ....lb. 3.25 - —
Syn., 98-100%, dms., works ....lb. 3.20 - —
Lindane, 25% formulation, to distributors, dms., frt. alld. lb. 1.35 - 1.50
Lindane, tech., to formulators, 250-lb. dms., 5,000 lbs., dlvd. lb. 2.13 - —
100-lb. dms., 5,000-lbs., dlvd lb. 2.15 - —
250-lb. dms., less than 5,000-lbs., dlvd lb. 2.18 - —
100-lb. dms., less than 5,000-lbs., dlvd lb. 2.20 - —
Linden flowers, with leaves, bls. lb. .35 - .40
Without leaves, bls. ....lb. .42 - .45
Linseed meal, expeller, 32% bulk, Minneapolis, mills ton 64.50 - —
Extracted, 34% bulk, same basis. ton 54.00 - —
Linseed oil, raw, dms., c.l., New York lb. .1680- —
dms., l.c.l., New York ....lb. .1770- .1820
tanks, f.o.b. Minneapolis ....lb. .1320- —
tanks, New York ....lb. .1431- —
tankwagon, New York ....lb. .1481- —
Boiled linseed oil, .006c. per lb higher.
Linseed oil, acid, dist., dms. ....lb. .2030- —
Water-white, dms. ....lb. .2330- —
Litharge, coml., powd., bbls., c.l., works, frt. equald. lb. .1375- —
bbls, l.c.l., same basis ....lb. .1475- —
Lithium aluminum hydride, lump, dms., works lb. 33.00 -39.00
Lithium benzoate, dms. ....lb. 1.65 - 1.97
Lithium bromide, NF, gran., bgs., works, frt. equald. lb. 2.60 - —
Lithium carbonate, NF, dms., c.l., t.l., dlvd lb. 1.20¼- —
dms., ton lots to t.l., dlvd. lb. 1.30 - 1.30⅛
Tech., dms., c.l., t.l., frt. alld. lb. .67 - —
dms., ton lots, same basis ....lb. .73 - —
dms., smaller lots, same basis. lb. .79 - —

Lithium chloride, CP, anhyd., dms., ton lots lb. 1.23¼- —
Tech., anhyd., dms., c.l., t.l., dlvd. or works, frt. alld. lb. .87 - —
dms., l.c.l., same basis ....lb. .88 - .92
Lithium citrate, NF, dms., ton lots. lb. 1.50 - —
Lithium fluoride, dms., 20,000-lb. lots, dlvd lb. 2.15 - —
bbls., ton lots and more, dlvd. lb. 2.18½- —
bbls., less ton lots, dlvd. ....lb. 2.23½- —
Lithium hydride, powd., dms., 500-lbs. lots or more, works. lb. 9.50 - —
Lithium hydroxide, monohydrate, dms., c.l., t.l., frt. alld lb. .72 - —
dms., l.c.l., frt. alld. ....lb. .73 - —
Lithium manganite, dms., works lb. .95 - 1.03
Lithium nitrate, tech., dms., 100-lb. lots lb. 1.15 - 1.25
Lithium salicylate, dms. ....lb. 1.60 - 1.70
Lithium silicate, dms., works ....lb. 1.10 - 1.20
Lithium stearate, dms., c.l., works. lb. .47½- —
dms., ton lots, works ....lb. .48½- —
dms., less-ton lots, works ....lb. .53½- —
Lithium sulfate, dms., 100-lb. lots. lb. 1.15 - 1.25
Lithium titanate, dms., works ....lb. 1.15 - 1.25
Lithol red toner, barium, bbls., works lb. .98 - —
Lithol-rubine red toner, pure, bbls., works lb. 1.50 - —
Resinated, bbls., works ....lb. 1.47 - —
Lithopone, ord., bgs., c.l., dlvd. E. lb. .03¾- —
bgs., l.c.l., dlvd. E ....lb. .09¼- —
Titanated (high-strength), bgs., c.l., dlvd lb. .11 - —
bgs., l.c.l., dlvd. ....lb. .12 - —
Lobelia herb, bls. ....lb. .55 - —
Lobeline sulfate, bots., 50-oz. lots, works oz. 30.00 - —
Locust bean gum, powd., bgs. ....lb. .35 - .40
Lycopodium, cs. ....lb. 3.25 - 3.50
l-Lysine monohydrochloride, 25-lb. dms lb. 4.95 - —

M

Mace, Siauw, No. 1, bls. ....lb. 1.90 - —
No. 2, whole, bls. ....lb. 1.65 - —
siftings, bls. ....lb. 1.60 - —
Mace oil, dist., cns., dms. ....lb. 9.00 -11.00
Magnesia, calcined, tech., bgs., cns., frt. equald lb. .25¾- .26½
Tech., syn., rubber grade, light, bgs., c.l., frt. equald lb. .28¾- .30
rubber grade, extra light, bgs., c.l., frt. equald lb. .28 - —
bgs., l.c.l., frt. equald lb. .28¾- —
Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points
Magnesia, calcined, tech., heavy, 85%, bgs., c.l., f.o.b. Lunning, Nev. ton 39.50 - —
91%, bgs., c.l., same basis. ton 49.50 - —
95%, bgs., c.l. same basis. ton 59.00 - —
USP, light, bgs. ....lb. .36½- .37½
USP, heavy, bgs. ....lb. .36½- .37½
Magnesite, chemical grade, calcined, powd., bgs., c.l., works, frt. equald ton 86.25 - —
Chemical grade, deadburnt, standard grain, bulk., c.l., Chawelah, Wash. ton 46.00 - —
Magnesium bromide, cs., jars lb. .95 - 1.00
Magnesium carbonate, tech., bgs., c.l., frt. equald lb. .11 - —
bgs., t.l., frt. equald ....lb. .11½- —
bgs., l.c.l., frt. equald ....lb. .13½- .14
USP, bgs., c.l., frt equald ....lb. .13½- —
bgs., t.l., frt. equald ....lb. .14 - —
bgs., l.c.l., frt. equald ....lb. .15 - 16
Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points.
Magnesium chloride, anhyd., 92%, flake or pebble, drums., c.l., works lb. .12¾- —
dms., l.c.l., works ....lb. .14 - .15
Hydrous, 99%, flake, bgs., c.l., works ton 55.00 - —
bgs., l.c.l., works ....ton 65.00 -80.00
Magnesium gluconate, 100-lb. dm., f.o.b. works, E lb. 1.42 - —
Magnesium hydroxide, NF, powd., dms., 500-lbs. or more, f.o.b. works lb. .24½- .25¼
Magnesium lauryl sulfate, dms., c.l., frt. alld. lb. .22½- —
dms., l.t.l., frt. alld. ....lb. .23½- —
tanks, frt. alld. ....lb. .21½- —

ONE LABEL — *First Grade Only*
ONE PRICE — *That Saves You Money*
. . . and Perfect Performance for *Every* Purpose!

M. C. P.
Pure
Unadulterated
California
LEMON OIL
U. S. P.

An *Exclusively First Grade Lemon Oil* . . . Cold Pressed in California . . . and *Packed by the Producer* to Assure Highest Quality

For nearly 30 years, Mutual Citrus Products Co. has been cold-pressing California lemon oil for distribution by others. Now, M.C.P. LEMON OIL is being *prepared and packed* under the M.C.P. label. There is only *one label* and *one* quality — *the highest* — for M.C.P. LEMON OIL. Yet, M.C.P. LEMON OIL costs you *less* . . . while providing a product that is unsurpassed for flavor, purity, and dependability . . . for *every* purpose.

Produced and Packed by
MUTUAL CITRUS PRODUCTS COMPANY
Since 1928 Growers and Processors of Citrus Products

Distributed by

MUTUAL CITRUS PRODUCTS CO.
424 South Atchison Street, Anaheim, Calif.

R. D. WEBB & CO., INC.
137 Boston Post Road, Cos Cob, Conn.

Magnesium metal, 99.8%, ingots, 10,000-lb. lots or more, works lb .36 - —
pigs, 10,000-lb. lots or more, works lb. .35¼ - —
sticks, cs., works, frt. alld on carlots lb. .59 - —
Magnesium nitrate, cryst., dms., works lb. .29 - —
Magnesium oxide (see Magnesia, calcined).
Magnesium phosphate, tribasic, NF, bbls lb. .75 - —
Magnesium silicate (see Talc).
Magnesium silicofluoride, dms., works lb .10½- .12
Magnesium sulfate, tech., bgs., c.l., works 100 lbs. 2.15 - —
bgs, l.c.l., works 100 lbs. 2.90 - 3.15
USP, cryst., bgs., c.l., works, 100 lbs. 2.35 - —
bgs., l.c.l., 5,000 lbs., 1 withdrawal 100 lbs. 3.10 - —
bgs., smaller lots 100 lbs. 3.35 - —
Magnesium trisilicate, USP, fib. dms., 5,000-lb. lots lb. .38 - —
fib. dms., 1,000-lb. lots lb. .40 - —
fib. dms., 100-lb. lots lb. .45 - —
Bulky and super grades of magnesium trisilicilate 7c. per. lb. higher.
Malachite green, straight, PTA, bbls., works lb. 5.30 - —
Malathion, dms., c.l., works lb. .89 - —
dms., l.c.l., works lb. .92 - 1.01
Maleic acid, cryst., powd., dms lb. .37¼- —
Maleic anhydride, dms., c.l., frt, equald lb. .23½- —
dms., l.c.l., frt. equald lb. .25 - —
tanks, frt. equald lb. .22½- —
Malic acid, tech., dms lb. .50 - —
Mandelic acid, NF, dms., 1,000-lb. lots lb. 2.35 - —
dms., smaller lots lb. 2.40 - 2.50
Mandrake root, bls lb. .40 - —
Manganese acetate, dms., dlvd lb. .35 - —
Manganese borate, tech., fib. dms. lb. .23½- —
Manganese carbonate, chemical grade, 46% Mn, bgs., 20,000-lb. lots and more, works lb. .11 - .16
Manganese chloride, CP, anhyd., dms., 20,000-lb. lots, works lb. .21¾- —
smaller lots, works lb. .23½- —
Manganese dioxide, African, 83-87%, 40,000 to 99,999-lb. lots, burlap paper lined bgs., gross for net works ton.148.00 - —
40,000 to 99,999-lb. lots, paper bgs., same basis ton.144.50 - —
40,000 to 99,999-lb. lots, dms. same basis ton.152.50 - —
Prices for manganese dioxide in 10,000 to 40,000-lb. lots, $3 per ton higher.
Manganese gluconate, dms lb. 1.84 - —
Manganese hydrate, dms., dlvd lb. .35 - —
Manganese hypophosphite, NF, dms. lb. 3.52 - —
Manganese linoleate, liq., 4.35% Mn, dms lb. .35¾- —
Solid, precip., 8.2% Mn, bbls lb. .41¼ —
Manganese metal, electrolytic, dms., c.l., dlvd. E. lb. .34 - —
dms., ton lots, dlvd. E. lb. .36 - —
dms., smaller lots, dlvd. E. lb. .38 - —
Manganese naphthenate, liq., 6% Mn, dms., frt. alld lb. .20¾- —
Manganese resinate, fused, 3½% Mn. dms lb. .29¼- —
Precip., 6½-7% Mn, dms lb. .37 - —
Manganese sulfate, fertilizer grade, 65% $MnSO_4$, bgs., c.l., dlvd., S. E ton.86.50 - —
bgs., l.c.l., dlvd. S. E ton.93.50 - —
Manganese tallate, 6%, dms lb. .26½- —
Manila copal gum, C, bgs. lb. .25 - .39
DBB, bgs. lb. .25 - .28
DK, bgs. lb. No stocks.
DK, dust, bgs. lb. .14 Nom.
MA, soft, bgs. lb. .20 - .24
WS, bgs. lb. No stocks.
Mannitol, com'l, fib. dms., ton lots, works lb. .60 - —
fib. dms., to ton lots, works lb. .62 - —
fib. dms., single dm., works lb. .65 - —
Marine pitch, dms. lb. .04¼- .05
MBTS (see Mercaptobenzothiazyl disulfide).
MBT (see 2-Mercaptobenzothiazole).
Melamine, bgs., c.l., works lb. .26½- —
bgs., l.c.l., works lb. .28 - —
Menadione, USP, bots. gram. .044 - .05
Menhaden oil, crude, tanks, works, Atl. & Gulf lb. .03¾- —
Menthol, nat., USP, Brazilian, large crystals, cs lb. 8.60 - —
Nat., USP, Brazilian, regular crystals, cs lb. 8.40 - 8.50
Japanese, cs. lb.12.00 - —
Syn., USP, racemic, 25-lb. lots lb. 4.25 - —
2-Mercaptobenzothiazole, bgs., fib. dms., ton lots, works, frt. alld lb. .44 - —
bgs., fib. dms., less ton lots, same basis lb. .46 - —
Mercaptobenzothiazyl disulfide, bgs., fib. dms., ton lots, works, frt. alld lb. .54 - —
bgs., fib. dms., less ton lots, same basis lb. .56 - —
Mercuric chloride, NF, cryst., dms., 100 lbs., f.o.b. works lb. 4.03 - —
USP, gran. or powd., 50-lb. dm., 100 lbs., f.o.b. works lb. 3.78 - —
Mercuric cyanide, NF VIII, powd., fib. dms lb. 5.84 - —
Mercuric iodide, red, NF, 100-lb. dm., f.o.b. works lb. 6.97 - —
Mercuric oxide, red, NF IX, 50-lb. dm., 100 lbs., f.o.b. works. lb. 4.72 - —
tech., 50-lb. dm., 100 lbs., same basis lb. 4.52 - —
Mercuric oxide, yellow, NF, 50-lb. dm., 100 lbs., same basis, lb. 4.89 - —
tech., dms., 100 lbs lb. 4.35 - —
Mercurous chloride (see Calomel).
Mercurous iodide, yellow, NF, 100-lb. dm., f.o.b. works lb. 8.22 - —
Mercury, ammoniated (see White precipitate, USP XV).
Mercury metal, 76 lbs. per flask, net-flask.212.00 -215.00
Mesityl oxide, dms., c.l., dlvd lb. .15 - —
dms., l.c.l., dlvd. lb. .16½- —
tanks, dlvd. lb. .12½- —
Meta-aminophenol (see m-Aminophenol).
Metachloroaniline (see m-Chloroaniline).
Metanilic acid, dms., works lb. .57 - .75
Metanitroparatoluidine (see m-Nitro-toluidine).
Metanitroaniline (see m-Nitroaniline).
Metaphenylenediamine (see m-Phenylenediamine).
Metatoluidine (see m-Toluidine).
Metatolylenediamine (see 2,4-Tolylenediamine).
Methacrylic acid, glacial, 98%, dms., truckloads, frt. equald lb. .42½- —
dms., smaller lots, frt. equald. lb. .43 - .75
tanks, works, frt. equald lb. .40 - —
Methanol, nat, denaturing grade, tanks, frt. alld gal. .85 - —
Syn., zone 1, dms., c.l., or t.l. min., dlvd gal. .51½- —
dms., l.c.l., dlvd. gal. .61½- —
tankwagon, 2,000-4,000 gal. lots, dlvd. Metropolitan area gal. .35 - —
tankwagon, 4,000 gal. min., dlvd gal. .30 - —
tankwagon, 4,000 gal. min., f.o.b. terminal gal. .29 - —
Methanol, syn., zone 2, dms., c.l., or t.l., min. frt. alld. or dlvd. gal. .55½- —
dms., l.c.l., works gal. .65½- —
tankwagon, 2,000-4,000 gal. lots, min., dlvd., Metropolitan area gal. .39 - —
tanks, 4,000 gal. min., dlvd. gal. .34 - —
Synthetic methanol zones are: Zone 1 is all continental US E. of eastern boundaries of Ariz., Idaho and Utah. Zone 2 is remainder of US west of above state boundaries comprising Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
Methapyrilene fumarate, 100-999 lbs., dms., f.o.b. works, frt. equald lb.21.75 - —
Methapyrilene hydrochloride, 100-999 lbs., dms., f.o.b. works, frt. equald lb.27.25 - —
Methenamine (see Hexamethylene-tetramine).
Methionine hydroxyanalogue, (calcium salt) 90% min., dms., t.l., frt. alld. lb. 1.10 - —
dms., l.t.l., same basis lb. 1.16 - —
dl-Methionine, fib. dms., frt. alld., 50-lb. or more lb. 3.50 - —
Feed grade, 98%, fib. dms., same basis lb. 1.55 - —
Methoxychlor, 50% wettable powder, dealers, dms., cs lb. .66 - —
Methyl abietate, non-ret. dms., c.l., dlvd. zone 1 lb. .21½- —
non-ret. dms., l.c.l., same basis lb. .22 - .22½
Methyl abietate, hydrogenated, non-ret. dms., c.l., dlvd. zone 1 lb. .23½- —
non-ret. dms., l.c.l., same basis. lb. .24 - .24½
Zone 1 includes New England and Middle Atlantic states, Va., W. Va., N. C., Ohio, Ky., Mich., Ind., Ill., Wis., St. Paul and Minneapolis, Minn.; St. Louis, Mo.; Miss., Ala., Ga., Fla., S. C. and Tenn.
Methyl acetone, nat., dms., l.c.l., E. of Miss., frt. alld gal. .62½- —
Syn., dms., c.l., frt. alld. E gal. .66 - —
dms., l.c.l., frt. alld. E. gal. .76 - —
tanks, frt. alld. E. gal. .51 - —
Synthetic methyl acetone E. territory comprises all states East of and including Colo., Mont., N. Mex. and Wyo. West territory is made up of all states west of those four.
Methyl acrylate, dms., c.l., t.l., dlvd. lb. .39 - —
dms., l.t.l., dlvd. lb. .40 - —
tanks, dlvd. lb. .37 - —
Methyl alcohol (see Methanol).
Methyl amyl acetate, dms., c.l., dlvd. E lb. .17 - —
dms., l.c.l., dlvd. E. lb. .18½- —
tanks, dlvd. E. lb. .14½- —
Methyl amyl alcohol, dms., c.l., dlvd. lb. .17 - —
dms., l.c.l., dlvd. lb. .18½- —
tanks, dlvd. lb. .14½- —
Methyl amyl ketone, dms., works. lb. 1.05 - —
N-Methylaniline, tech., tanks, frt. alld lb. .60 - —
Methylanthranilate, cns. lb. 2.45 - 3.00
Methyl benzoate, cns., dms. lb. .60 - .75
Methyl bromide, service organization prices, 40 to 375-lb. cyls., large lots, frt. alld lb. .62 - .65
Methyl cellulose, special vis., (1,500-4,000 cps.) 50-lb. bgs., c.l., works lb. .82 - —
50-lb. bgs., 2,000-lb. lots and more, same basis lb. .89 - —
50-lb. bgs., smaller lots, frt. alld. on 100 lbs lb. 1.05 - —
Standard vis. (15,400 cps.) 50-lb. bgs., c.l., frt. alld lb. .69 - —
50-lb. bgs., 2,000-lb. lots and more, same basis lb. .76 - —
50-lb. bgs., smaller lots, frt. alld. on 100 lbs lb. .79 - .82
Methyl chloride, indust., cyls., frt. equald lb. .22¼- —
tanks, multi-unit, same basis. lb. .16¼- —
tanks, single unit, same basis. lb. .12¾- —
Refrigerator mfrs., cyls., dlvd lb. .48¾- —
Other consumers or service men, cyls., dlvd lb. .67¾- —
Methyl chloroform (see 1,1,1-Trichloroethane).
Methyl cinnamate, cns. lb. 1.55 - 1.80
Methyl ethyl ketone, dms., c.l., dlvd lb. .15 - —
dms., l.c.l., dlvd lb. .16½- —
tanks, dlvd. lb. .12½- —
2-Methyl-5-ethyl pyridine, dms., c.l., works lb. .45 - —
dms., l.c.l., works lb. .45¾- —
tanks, works lb. .43 - —
Methyl formate, refd., dms lb. .35 - .40
Tech., non-ret. dms., any quantity, works lb. .10 - —
tanks, works lb. .07 - —
a-D Methyl glucoside, tech., 100-lb. multiwall paper bgs., c.l., works lb. .21 - —
100-lb. multiwall paper bgs., t.l., min. 23,000 lbs., works. lb. .21½- —
100-lb. multiwall paper bgs., l.t.l., works lb. .23 - —
Methyl heptin carbonate, bots. lb.28.00 -31.00
Methyl p-hydroxybenzoate, fib. dms. lb. 1.90 - 2.00
Methyl ionone, standard, cns., dms. lb. 3.40 - 3.85
Methyl isobutyl carbinol (see Methyl amyl alcohol).
Methyl isobutyl Ketone, dms., c.l., dlvd lb. .17 - —
dms., l.c.l., dlvd lb. .18½- —
tanks, dlvd lb. .14½- —
Methyl methacrylate, dms., c.l., t.l., frt. equald, with Belle, W. Va lb. .31 - —
dms., smaller lots, same basis lb. .31½- —
tanks, same basis lb. .29 - —
Methyl naphthyl ketone, cryst., cns lb. 2.45 - 4.30
Methyl parahydroxybenzoate (see p-Hydroxybenzoate).
Methyl parathion, tech., 80%, dms., frt. alld. E lb. .84 - —
Methyl parathion prices 2c. per lb. higher in West.
Methyl roseaniline chloride, NF., 5-lb. fib. dms lb. 6.90 - —
Methyl salicylate, dms., t.l., frt. alld lb. .60¼- —
dms., l.c.l., same basis lb. .62½- .67½
Methyl testosterone, USP, 100-gram. bots gram. No Prices.
2-Methyl-5-vinyl pyridine, 40-dm. lots or more, f.o.b. works lb. 1.30 - —
5-39 dm. lots, same basis lb. 1.35 - —
tanks, same basis lb. 1.25 - —
Methyl violet toner, molybdated, PMA, bbls., dlvd. E. of Rockies lb. 2.80 - —
Tungstated, PTMA, bbls., same basis lb. 4.35 - —
Methyl violet prices 1c. higher W. of Rockies.
Methylene blue, fib. dms., 100-lb. lots, frt. adjusted lb. 3.25 - —
Methylene chloride, tech., straight or assorted, dms., c.l., or t.l., dlvd lb. .13½- —
dms., l.c.l., l.t.l., dlvd lb. .15¾- —
tanks, 4,000-gal. min., dlvd lb. .12¼- —
tanktrucks, 1,000-gal. min., dlvd. lb. .13¼- —
b-Methylnaphthalene, 32°C., m.p., dms., works lb .90 - —
Methylpentanediol (see Hexylene glycol).
Methylphenylpyrazolone (see 1-phenyl-3-methyl-pyrazolone-5).
Methylthionine chloride (see Methylene blue).
Mica, dry-grd., paint, plastic, 100 mesh, bgs., c.l., works lb. .04 - —
roofing, 20 to 80 mesh, works lb. .03 - —
Mica, wet-grd., biotite, bgs., c.l., works, frt. alld. E lb. .06½- —
bgs., l.c.l., ex-whse. lb. .07¼- —
paint or lacq., bgs., c.l., 325 mesh, works, frt. alld. E. lb. .06¼- —
bgs., l.c.l., ex-whse or freight alld. E. lb. .09 - —
rubber bgs., c.l., works, frt. alld. E lb. .08 - —
bgs., l.c.l., ex-whse, or frt. alld. E lb. .08¾- —
wallpaper, bgs., c.l., works, frt. alld.E lb. .08¾- —
bgs., ex-whse. or frt. alld. E. lb. .09 - —
white, 5-10 microns, bgs., c.l., works, frt. alld. E lb. .08¼- —
Mica, wet-grd. W. of Miss. ½c. higher; W. of Rockies 1c. higher.
Microcrystalline wax, petroleum, coating grades, tankcars, works lb. .10 - .11
laminating grades, tankcars, works lb. .11 - .12
Mineral black, bgs., works lb. .0160- .0673
Mineral oil, white, tech., 50-65 vis., non-ret. dms., c.l., f.o.b. refy gal. .65 - —
50-65 vis., non-ret. dms., l.c.l., basis gal. .70 - —
tankscars, refy. gal. .49 - —
65-75 vis., non-ret. dms., c.l., same basis gal. .65 - —
non-ret. dms., l.c.l., same basis gal. .70 - —
tankcars, refy. gal. .49 - —
NF, 80-90% vis., non-ret. dms., c.l., same basis gal. .66 - —
non-ret. dms., l.c.l., same basis gal. .71 - —
tankcars, refy. gal. .50 - —
NF, 135-138 vis., non-ret. dms., c.l., same basis gal. .72 - —
non-ret. dms., l.c.l., same basis gal. .77 - —
tankcars, refy. gal. .56 - —
NF, 145-155 vis., non-ret. dms., c.l., same basis gal. .78 - —
non-ret. dms., l.c.l., same basis gal. .83 - —
tankcars, refy. gal. .62 - —
Mineral oil, white, USP, 180-190 vis., non-ret. dms., c.l., same basis gal. .80½- —
non-ret. dms., l.c.l., same basis gal. .85½- —
tankcars, refy. gal. .64½- —
USP, 200-210 vis., non-ret. dms., c.l., f.o.b. refy gal. .82½- —
non-ret. dms., l.c.l. gal. .87½- —
tankcars, refy gal. .66½- —
USP, 340-350 vis., non-ret. dms., c.l., f.o.b. refy gal. .87½- —
non-ret. dms., l.c.l. gal. .92½- —
tankcars, refy. gal. .71½- —
(For f.o.b N. Y. add 2c. for tankcars; 2c. for c.l., and 3c. for l.c.l. non-ret. dms.).
Mineral orange, American, bbls., c.l., works lb. .1550- —
bbls., c.l., same basis lb. .1650- —
Mineral spirits, petroleum, odorless, tankcars, New Jersey gal. .29 - —
New York gal. .305 - —
Houston, Texas gal. .25 - —
regular, tankcars, New Jersey and New York gal. .18 - —
Group 3 gal. .12875- —
Houston, Texas gal. .145 - —
Mink oil, dms. lb. 2.75 - —
Mirbane oil (see Nitrobenzene).
MNPT maroon toner, kgs., c.l., works lb. 6.30 - —
Molasses, blackstrap, feed grade, tanks, New Orleans gal. .08¼- .08½
tanks, New York bbl. .13½- —
Molybdated orange, bbls. lb. .49 - —
Molybdenum metal, powd., 80 or 200 mesh, ctns., works kilo. 7.84 - —
325 mesh, ctns., works kilo. 9.13 - —
Molybdenum trioxide, purif., dms., works lb. 1.15 - —
Tech., chemical, dms., works, basis Mo content lb. 1.48 - —
Tech., metallurgical, dms., works, basis Mo. content lb. 1.47 - —
Molybdic acid, 85%, dms., works. lb. 1.05 - 1.15
Monoallylamine, dms., c.l., dlvd lb. .965 - —
dms., c.l., dlvd. lb. .995 - —
tanks, dlvd. lb. .96 - —
Monobutylamine, dms., c.l., dlvd. E. of Rockies lb. .57½- —
dms., l.c.l., same basis lb. .59 - —
tanks, same basis lb. .55 - —
Mono-tert-butyl-m-cresol, dms., c.l., works lb. .55 - —
dms., l.c.l., works lb. .56 - —
tanks, works lb. .54 - —
Mono-tert-butyl-m-cresol, dms., c.l., works lb. .55 - —
dms., l.c.l., works lb. .56 - —
tanks, works lb. .54 - —
Monochloracetic acid, purif. (see Chloroacetic acid, mono).
Monochlorobenzene, dms., c.l., frt. alld. or dlvd. E lb. .10¼- —
dms., l.c.l., same basis lb. .11¼- —
tanks, same basis lb. .08¾- —
Monoethanalamine, dms., c.l., dlvd. E lb. .27½- —
dms., l.c.l., same basis lb. .29 - —
tanks, same basis lb. .25 - —
Monoethylalphanaphthylamine (see N-Ethyl-a-naphthylamine).
Monoethylamine, 70% aqueous, solution, dms., c.l., dlvd. E. 100% basis lb. .38½- —
dms., l.c.l., dlvd. E., 100% basis. lb. .40 - —
tanks, dlvd. E., 100% basis lb. .35 - —
Monoethylaniline (see N-Ethylaniline).
Monoethylorthotoluidine (see N-Ethyl-o-toluidine).
Monoisopropanolamine, dms., c.l., dlvd. E lb. .27½- —
dms., l.c.l., same basis lb. .29 - —
tanks, same basis lb. .25 - —
Monoisopropylamine, anhyd., dms., c.l., dlvd lb. .33½- —
dms., l.c.l., same basis lb. .35 - —
tanks, same basis lb. .31 - —
Monomethylamine, anhyd., cyls., l.c.l., frt. equald., 100% basis lb. .30 - —
tanks, 100% basis lb. .26 - —
30-35% soln., dms., c.l., frt. equald., 100% basis lb. .36 - —
dms., l.c.l., frt. equald., 100% basis lb. .36½- —
tanks, frt. equald., 100% basis. lb. .26 - —
40% soln., dms., frt. equald., 100% basis lb. .33 - —
dms., l.c.l., frt. equald., 100% basis lb. .33½- —
tanks, frt. equald, 100% basis lb. .26 - —
Monopentaerythritol, tech., bgs., c.l., dlvd. E lb. .31 - —
bgs., l.c.l., dlvd. E lb. .32 - —
Monopotassium glutamate, dms., 1,000-lb. lots, frt. alld. lb. 3.05 - —
dms., 100-lb. lots, same basis lb. 3.25 - —
Monosodium glutamate, dms., dlvd. lb. 1.07 - 1.15
Monosodium phosphate (see sodium phosphate, monobasic).
Montan wax, Calif., refd., bgs lb. .27 - .28
Imp., crude, Bohemian, bgs lb. .22 - .24
German, bgs lb. .26 - .27
Morphine, cns., 100-oz., f.o.b. works. oz.12.35 - —
Morphine hydrobromide, cns., 100-oz., f.o.b. works oz. 9.90 - —
Morphine hydrochloride, NF, cns., 100-oz., f.o.b. works oz. 9.90 - —
Morphine sulfate, USP, cns., 100-oz., f.o.b. works oz. 9.90 - —
Morpholine, dms., c.l., dlvd. E lb. .55¼- —
dms., l.c.l., dlvd. E lb. .56¼- —
tanks, dlvd. E lb. .52¾- —
Muriatic acid (see Hydrochloric acid).
Musk, syn., ambrette, fib. dms., 100-lb. lots lb. 4.40 - 4.90
cns., 25-lb. lots lb. 4.50 - 5.00
Ketone, fib. dms., 100-lb. lots lb. 4.60 - 5.10
cns., 25-lb. lots lb. 4.70 - 5.20
Xylol, fib. dms., 100-lb. lots lb. 1.26 - —
cns., 25-lb. lots lb. 1.40 - —
Mustard seed, Danish, yellow, bgs. lb. .11½- —
Montana, yellow, bgs lb. .10½- —
Oriental, bgs lb. .08 - —
Mustard, oil, syn., bots lb. 1.60 - 1.85
Myristic acid, bgs. lb. .30 - .32½
tanks lb. .29 - —
Myrrh gum, cs lb. .65 - .75

N

Naphtha, high solvency (see Solvent naphtha, petroleum).
Naphtha, petroleum, cleaner's (see Cleaner's naphtha).
Naphtha, VM&P, petroleum, tankcars, New Jersey and New York gal. .19 - —
Group 3 gal. .13875- —
Houston, Texas gal. .155 - —
Naphthalene, crude, dom., 78°, tanks, frt. equald lb. .05 - .06
imp., 78°, bgs., large lots lb. .09½ Nom.
Refd., indust., chipped, crushed, bgs., frt. equald lb. .12½- —
tanks, same basis lb. .09¾- .10¾
Naphthalene, refd., indust., balls, flakes, wholesalers, jobbers, bbls., c.l., same basis. lb. .15½- —
cs., 50 lbs., c.l., same basis. lb. .15¾- —
1-lb. pkgs., c.l., same basis. lb. .18½- —
a-Naphthol, dms., frt. alld. lb. 1.00 - —
b-Naphthol, tech., flake, bbls., c.l., works lb. .34 - —
bbls., l.c.l., works lb. .36 - —
Naphthol, ITR, red toner, bbls., works lb. 5.00 - —
1-Naphthol-3,6-disulfonic 8-amino acid (see H acid).
1-Naphthol-4 sulfonic acid (see Neville and Winther's acid).
1-Naphthol-5-sulfonic acid (see L acid).
1-Naphthol-5-sulfonic 8-amino acid (see S acid).
2-Naphthol-6,8-disulfonic acid (see Gamma acid).
Naphthol sulfonic mixed acid (see Cleve's acid).
a-Naphthylamine, dms., frt. alld lb. .50 - —
b-Naphthylamine, tech., flake, bbls., works lb. 1.60 - —
1-Naphthylamine-5-sulfonic acid (see Laurent's acid).
2-Naphthylamine-4,8-disulfonic acid (see Cassella acid).
2-Naphthylamine-1-sulfonic acid (see Tobias acid).
2-Naphthylamine-6-sulfonic acid (see Broenner's acid).
2-Naphthylamine-7-sulfonic acid (see F acid).
Naringin, fib. dms. lb. 8.50 - —
Neatsfoot oil, 15° cold test, dms lb. .29 Nom.
20° cold test, dms. lb. .28 Nom.
30° cold test, dms. lb. .27 Nom.
Neocinchophen, USP, dms., frt. adjusted lb. 7.00 - 8.00
Neomycin sulfate, fib. dms., 1-kilo basis activity gram. .25 - —
fib. dms., 100-999-gram lots, basis activity gram. .30 - —
Tech., fib. dms. gram. .13½- —
Neopentylglycol, dms., c.l., dlvd lb. .32 - —
dms., l.c.l., same basis lb. .33 - —
Nerol, dms. lb. 4.75 - —
Neroli oil, NF, French, bots lb.425.00 -575.00
Tunisian, bots. lb.400.00 - —
Nerolin, cns. lb. 2.45 - 2.85
Neville and Winther's acid, dms., frt. alld lb. 1.30 - —
Niacinamide (see Nicotinamide).
Nickel acetate, bbls., dlvd. lb. .68½- .75½
Nickel carbonate, bbls., dlvd lb. 78¼- .85¼
Nickel chloride, bbls., dlvd. lb. .37 - .45
Nickel formate, bbls., ton lots, frt. alld lb. .72 - .73

Nickel metal, electro cathodes, cs., works..lb .74 - —
Nickel nitrate, dms., frt. alld....lb. .31½- .33¼
Nickel oxide, black, bbls. .....lb. .85 - —
Green, bbls. .....lb. .84 - —
Nickel sulfate, bgs., c.l., dlvd....lb. .28 - —
bgs., l.c.l., dlvd. .....lb. .28½- .36
Nicotinamide, USP, 50-kilo., dms., 100 kilos., dlvd..kilo. 6.50 - —
dms., less than 100 kilos, dlvd. kilo. 6.60 - 7.00
Nicotine sulfate, 40%, dealers, 50-lb. dms. frt. alld lb. 1.20 - —
40%, manufacturers, 500-lb. dms., frt. alld. lb. 1.05 - —
Nicotinic amide, USP (see Nicotinamide).
Niger seed, bgs. .....lb. .10¼- —
Nikethamide, cbys. .....lb. 5.00 - —
Nitric acid, 36° Be., cbys., c.l., works E..100 lbs. 5.75 - —
cbys., l.c.l., works E..100 lbs. 6.05 - 6.65
38° Be., cbys., c.l., works E. 100 lbs. 6.25 - —
cbys., l.c.l., works E..100 lbs. 6.55 - 7.35
40° Be., cbys., c.l., works E. 100 lbs. 6.75 - —
cbys., l.c.l., works E....100 lbs. 7.05 - 7.85
42° Be., cbys., c.l., works E. 100 lbs. 7.25 - —
cbys., l.c.l., works E. 100 lbs. 7.55 - 8.35
58.5 to 68% HNO_3, tanks, works, 100% basis..100 lbs. 3.90 - —
94½ to 95½% HNO_3, tanks, works, 100% basis..100 lbs. 4.90 - —
CP, NF, consumer, cbys., extra, c.l., works lb. .18½- —
cbys., extra, l.c.l., works lb. .20 - —
5-pint bots., extra, cs., c.l., same basis lb. .22½- —
5-pint bots., extra, cs., l.c.l., same basis lb. .24 - .25
4-Nitro-2-aminophenol, tech., paste, dms., frt. alld lb. .99 - —
m-Nitroaniline, cryst., dms., frt. alld lb. 1.15 - —
Paste, dms., frt. alld., 100% basis. lb. 1.10 - —
o-Nitroaniline, flaked, dms., t.l., frt. alld. lb. .49 - —
dms., l.t.l., frt. alld. .....lb. .51 - —
o-Nitroaniline orange toner, kgs. lb. 1.35 - —
p-Nitroaniline, dms., frt. alld. lb. .445 - —
o-Nitroanisole, tech., tanks, frt. alld. lb. .36 - —
p-Nitroanisole, tech., solid, dms., frt. alld. lb. .72 - —
Nitrobenzene, dbl. dist., dms., c.l., frt. alld. lb. .13 - —
dms., l.c.l., frt. alld. .....lb. .14 - —
tanks, frt. alld. .....lb. .11 - —
p-Nitrobenzoic acid, dms., c.l., works..lb. .63 - —
dms., l.c.l., works .....lb. .64 - —
Nitrocellulose, ester-soluble, 30-35 cps., ¼, ½, ¾, 5-6, 15-20, 30-40, 60-80, 125-175 seconds, bbls., c.l., works..lb. .37½- —
bbls., l.c.l., same basis lb. .33½- .40⅛
18-20, cps., bbls., c.l., same basis lb. .39½- —
bbls., l.c.l., same basis lb. .40½- .42½
250-400, 600-1,000 seconds, bbls., l.c.l., same basis .... lb. .43 - .46
Spirit soluble, 30-35 cps., ¼, ½ seconds, bbls., c.l., same basis..lb. .43 - —
bbls., l.c.l., same basis lb. .44 - .46
5-6 cps., 40-60 seconds, bbls., c.l., same basis..lb. .42 - —
bbls., l.c.l., same basis ....lb. .43 - .45
Denatured alcohol used in the manufacture of nitrocellulose is charged extra. Drums extra but returnable.
o-Nitrochlorobenzene, dms., c.l., frt. alld..lb. .15 - —
dms., l.c.l., same basis.....lb. .16 - —
tanks, same basis .....lb. .13 - —
p-Nitrochlorobenzene, dms. .....lb. .26 - .27
2-Nitro-p-cresol, tech., dms., dlvd lb. .88 - —
Nitroethane, dms., c.l., dlvd. E..lb. .25 - —
dms., l.c.l., dlvd. E.....lb. .26½- —
tanks, dlvd. E. .....lb. .22½- —
Nitroethane prices West of Rockies are 1c. higher.
Nitrogen solutions, tanks, frt. equald. N..unit. 1.28 - —
Nitrogen tetroxide, indust., tankcars, f.o.b. Hopewell, Va. lb. .065 - —
Cyls., t.l., min. 5 tons, same basis..lb. .07½- —
Cyls., l.c.l., l.t.l., same basis..lb. .15 - —
Nitrogenous process tankage, bulk, works..unit-ton. 4.50 - 5.00
Nitrogenous sewage sludge, bulk, f.o.b. Chicago, works. unit-ton. 3.50 - .50
Nitromethane, dms., t.l., dlvd. E lb. .25 - —
dms., l.t.l., dlvd. E.....lb. .26½- —
Nitromethane prices West of Rockies are 1c higher.
a-Nitronaphthalene, bbls., frt. alld. lb. .31 - —
o-Nitrophenol, dms., works, frt. equald. lb. .94 - —
p-Nitrophenol, dms., c.l., frt. alld. lb. .45 - —
dms., l.c.l., frt. alld.....lb. .47 - —
1-Nitropropane, dms., c.l., frt. alld. E. of Rockies..lb. .23½- —
dms., l.c.l., same basis.....lb. .25 - —
tanks, same basis.....lb. .21 - —
2-Nitropropane, dms., c.l., frt. alld. E. of Rockies..lb. .18½- —
dms., l.c.l., same basis.....lb. .20 - —
tanks, same basis.....lb. .16 - —
Nitropropane prices West of Rockies are 1c. per lb. higher.
m-Nitrotoluene, tech., dms., frt. alld. lb. .50 - —
o-Nitrotoluene, dms., c.l., frt. alld lb .15 - —
dms., l.c.l., frt alld. .....lb. 16 - —
tanks, frt. alld. .....lb. .13 - —
p-Nitrotoluene, tech., cast, dms., c.l., works .lb. .27½- —
dms., l.c.l., works .....lb. .28 - —
flake, dms., c.l., t.l., works..lb. .27½- —
dms., l.c.l., works.....lb. .28 - —
m-Nitro-p-toluidine, dms. .....lb. 1.25 - —
Nonylphenol, dms., c.l, frt. alld. lb. .22 - —
dms., l.c.l., frt. alld.....lb. .23 - —
tanks, frt. alld. .....lb. .19½- —
Nonylphenol prices on shipments to Western States are 2c. higher.
Nutmegs, East Indian, whole, bgs. lb. 1.36 - —
West Indian, bgs. .....lb. 1.45 - —
Nutmeg oil, USP, dist., East Indian, cns..lb. 9.00 -12.00
West Indian, cns. .....lb. 9.00 -12.00
Nux vomica, bls. .....lb. .20 - —
Powd., bbls., bxs. .....lb. .20 - .22

O

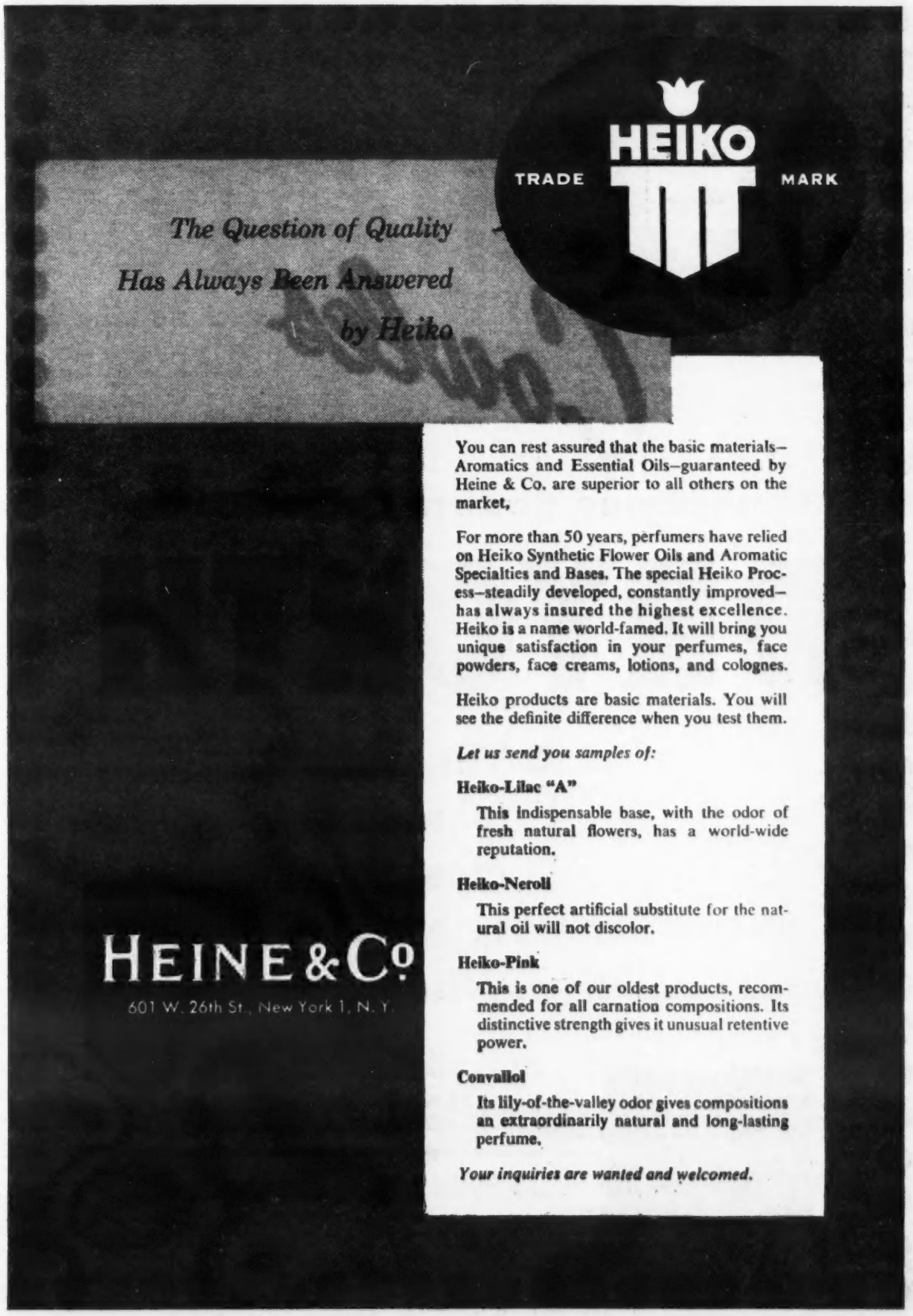
Ocher (see Iron oxide yellow, nat.).
Ocotea cymbarum oil, dms .....lb. .48 - .58
Octane, indust., tanks, Bayonne, N.J...gal. .20 - —
Borger, Tex. .....gal. .15¾- —
1-Octanol, tech., dms., c.l., dlvd., Zone 1..lb. .43½- —
dms., l.c.l., dlvd. Zone 1—lb. .45½- —
tanks, dlvd., Zone 1.....lb. .41 - —
Octyl alcohol, perfumers grade, bots. lb. 1.00 - 3.25
Octyl alcohol, tech, (see 1-Octanol, tech).
tert-Octylamine, dms., c.l., t.l., f.o.b. works..lb. .54½- —
dms., l.c.l., same basis.....lb. .55 - —
Octyl phenol, bgs., c.l., works..lb. .22 - —
bgs., l.c.l., works.....lb. .22½- —
tanks, works.....lb. .21 - —
Octyl phenol in dms., 11c. higher.

OILS
Oil quotations are listed individually. For example, prices on Oil, coconut, may be found in the C's under Coconut oil.

Oiticica oil, liq., dms. .....lb. .16 - .16½
tanks .....lb. .14 - —
Oleic acid, dbl.-dist. (white), dms. lb. .17½- .20
tanks .....lb. .15 - —
S.d., dms. .....lb. .16¼- .18¾
tanks .....lb. .13¾- —
Oleo oil, extra, dms.....lb. .14 - .14¼
Oleostearine, dms. .....lb. .12¾- .13
Oleum (see Sulfuric acid, fuming).
Olibanum gum, siftings, cs.....lb. .15 - .20
Tears, cs. .....lb. .22 - .30
Olibanum oil, bots.....lb. 5.00 - 7.65
Extra fine, bots.....lb. 8.00 - 9.50
Olive oil, edible, dms., spot, duty-paid..gal. 2.40 - 2.50
Olivine, crude, works.....ton.12.00 - —
20 mesh, works.....ton.15.00 - —
100 mesh works.....ton.20.00 - —
Opium, USP, cns., 25-lbs., f.o.b. works..oz.19.20 - —
gran., cns., 50 lbs., same basis. oz.21.65 - —
powd., cns., 50 lbs., same basis. oz.21.65 - —
Orange oil, Calif., sweet distilled, cns., dms lb. .60 - —
Orange oil, Fla., sweet dist. cns., dms..lb. .35 - —
California, cns., dms.....lb. .70 - .90
Florida, cns., dms.....lb. .45 - .50
Messina, cns .....lb. 3.25 - 5.00
West Indian, bitter, cns., dms. lb. 2.50 - 3.25
Orange peel, bitter, Haitian, bls..lb. .18 - .20
Sweet .....lb. .28 - .30
Origanum oil, Spanish, cns.....lb. 1.80 - 2.30

ORANGE PIGMENTS
Orange pigment quotations are listed individually. For example, prices on Orange, chrome, may be found in the C's under Chrome orange.

Orris root, Florentine, bls.....lb. .55 - —
powd., bbls., bxs.....lb. .65 - —
Verona, bls.....lb. .35 - —
powd., bbls., bxs.....lb. .45 - —
Orthoanisidine (see o-Anisidine).
Orthochlorobenzaldehyde (see o-Chlorobenzaldehyde).
Orthochloroaniline (see o-Chloroaniline).
Orthochlorobenzoic acid (see o-Chlorobenzoic acid).
Orthochloroparanitroaniline (see 2-Chloro-4-nitroaniline).
Orthochlorophenol (see o-Chlorophenol).
Orthocresol (see o-Cresol).
Orthocresotinic acid (see 2,3-Creosotic acid).
Orthodichlorobenzene (see o-Dichlorobenzene).
Orthonitroaniline (see o-Nitroaniline).
Orthonitrochlorobenzene (see o-Nitrochlorobenzene).
Orthonitroparachlorophenol (see 2-Nitro-4-Chlorophenol).
Orthonitrophenol (see o-Nitrophenol).
Orthonitrotoluene (see o-Nitrotoluene).
Orthophenetidine (see o-Phenetidine).
Orthophenylphenol (see o-Phenyl phenol).
Ortho-tertiary amylphenol (see o-tert-Amylphenol).
Orthotolidine (see o-Tolidine base).
Orthotoluidine (see o-Toluidine).
Ouabain, USP, bots. .....gram. 3.00 - 4.00
Ouricury wax, crude, bgs.....lb. .56 - .58
Refd., pure, bgs. .....lb. .66 - .67
Oxalic acid, bgs., dms., c.l., works. lb. .18 - .18¼
bgs., dms., 10,000-lb. lots, works. lb. .18¼- .18⅝
bgs., dms., smaller lots, works. lb. .19¼- .19⅝
b-Oxynaphthoic acid, pigment manufacture, dms., frt. alld lb. .912 - —
Dyestuff manufacture, dms., same basis..lb. 1.03 - 1.14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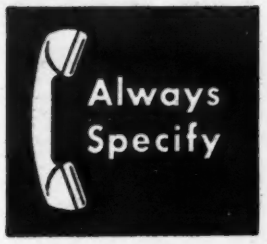
Oxyquinolin sulfate, cns., 100-lb. lots, works lb. 4.75 - 5.00
cns., smaller lots, works lb. 4.92 - 5.17

P

Palm oil, clarif., dms. lb. .14 - .15
tanks lb. .11¾- —
Palm oil acid, dist., dms. lb. .15¾- .19¼
tanks lb. .13¾- .14¼
Palmarosa oil, cns. lb. 4.45 - 6.00
Papain, powd., bots. lb. 5.50 -10.00
Papaverine hydrochloride, nat. or syn., USP, cns., 25-oz. to 100-oz. lots oz. 5.00 - —
cns., smaller lots oz. 5.05 - 5.20
Papaverine sulfate, nat. or syn., USP, cns oz. 7.10 - 7.35
Paprika, Bulgarian, bgs. lb. .25 - —
Hungarian, bgs. lb. .29 - —
Spanish, bgs. lb. .38 - —
Yugoslavian, bgs. lb. .29 - —
Para-aminobenzoic acid (see p-Aminobenzoic acid).
Parachlorobenzoic acid (see p-Chlorobenzoic acid).
Paramethylphenylcinchonic acid (see Neocinchophen).
Paranitrobenzoic acid (see p-Nitrobenzoic acid).
Paratoluidinemetasulfonic acid (see p-Toluidine-m-sulfonic acid).
Para-aminophenol (see p-Aminophenol).
Parachloro-orthonitroaniline (see 4-Chloro-2 nitroaniline).
Para-anisidin (see p-Ansidine).
Parachloraniline (see p-Chloraniline).
Parachlorobenzaldehyde (see p-Chlorobenzaldehyde).
Parachlorophenol (see p-Chlorophenol).
Paracresol (see p-Cresol).
Paradibromobenzene (see p-Dibromobenzene).
Paradichlorobenzene (see p-Dichlorobenzene).
Para toner, red, bbls. lb. 1.21 - —
Chlorinated, kgs. lb. 1.36 - —
Paraffin, crude, scale, white, 123°-127°F., ASTM, tanks, refy. lb. .0655- —
Paraffin, fully refd., 122°-124°F., ASTM, tanks, refy lb. .0765- —
125°-127°F., ASTM, tanks, refy. lb. .0765- —
130°-132°F., ASTM, tanks, refy. lb. .0765- —
132°-134°F., ASTM, tanks, refy. lb. .0765- —
135°-137°F., ASTM, tanks, refy. lb. .0765- —
AMP temperatures are an arbitrary 3°F. higher than ASTM.
Paraffin oil, pale, 100-110 vis., at 100°F., tanks east coast refy gal. .14 - —
Paraffin wax (see Paraffin).
Paraformaldehyde, 91%, flake, bgs., c.l., frt. alld lb. .10 - —
bgs., l.c.l., frt. alld lb. .12 - .13
91%, powd., bgs., c.l., ex whse. lb. .1715- —
bgs., l.c.l., ex whse lb. .1865- —
USP-X, fib. dms., c.l. lb. .19 - —
fib. dms., 1,000-lb. lots lb. .20 - —
fib. dms., smaller lots lb. .21½- —
Paraldehyde, tech., 98%, 55-gal. dms., t.l., dlvd lb. .14 - —
55-gal. dms., l.c.l., dlvd lb. .15 - —
tanks, dlvd. lb. .11½- —
Paranitroaniline (see p-Nitroaniline).
Paranitrochlorobenzene (see p-Nitrochlorobenzene).
Paranitrotoluene (see p-Nitrotoluene).
Paranitrophenol (see p-Nitrophenol).
Paraphenetidine (see p-Phenetidine).
Paraphenylenediamine (see p-Phenylenediamine).
Paraphenylphenol (see p-Phenylphenol).
Para-tertiary-amylphenol (see p-tert-Amylphenol).
Para-tertiary butylphenol (see p-tert-Butylphenol).
Parathion, ethyl, dms., frt. alld lb. .84 - —
Parathion prices 2c. per lb. higher in West.
Paratoluenesulfonamide (see p-Toluenesulfonamide).
Paris green, dealers, 100 lb. dms., frt. alld lb. .45 - —
Passion flower herb, bls. lb. .45 - .50
Patchouli oil, imp., cns. lb. 5.50 - 6.50
Peach kernel oil, USP (see Apricot kernel oil).
Peacock blue, fugitive, 100% color strength, 250-lb. bbls., dlvd. E. of Rockies lb. 1.00 - —
Peacock blue price 1c. higher W. of Rockies.
Peanut meal, 45%, old process, bgs., f.o.b. mills ton. 52.50 - —
Peanut oil, crude, tanks, f.o.b. mills. lb. .15¾- —
Refd., dms. lb. .21 - .21½
tanks lb. .19 - —
Pectin, dom., NF, citrus, powd., bbls. lb. 2.05 - 2.06
Dom., tech., powd., 150 jelly grade, bbls lb. 1.28 - —
Imp., Danish, bbls., ex whse lb. 1.28 - —
Pelargonic acid, dms., c.l., dlvd lb. .25 - —
ton lots, same basis lb. .27½- —
tanks, same basis lb. .23½- —
Penicillin, potassium, cryst., bulk, 1,000,000 units. .021 - —
Penicillin, procaine, cryst., bulk, 1,000,000 units. .023 - —
Pennyroyal oil, USP, imported, cns. lb. 2.25 - 3.10
Pentachlorophenol, bgs., c.l., t.l., works, frt. equald lb. .21 - —
bgs., l.c.l., same basis lb. .22½- .29
Pentachlorophenol in dms. 1c. higher.
Pentaerythritol, tech., bgs., c.l., dlvd lb. .31 - —
bgs., l.c.l., dlvd. lb. .32 - —
Pentaerythritol, di- and tri-isomers (see Dipentaerythritol and Tripentaerythritol).
Pentane, indust., tanks, Tex. refy. gal. .14 - —
Pentobarbital, dms., 100 lbs. or more lb. 6.00 - —
Pepper, black, Malabar, bgs lb. .58 - —
Lampong, bgs. lb. .58 - —
Red, Funtuas, bgs. lb. .52 - —
Japanese, Hontoka, bgs. lb. .37½- —
Santaka, bgs. lb. .31½- —
Sudanese, bgs. lb. .36 - —
White, Muntok, bgs lb. .78 - —
Peppermint leaves, dom., USP, bls., dms. lb. .70 - .75
Imp., USP, bls. lb. .85 - —
Peppermint oil, nat., dms. lb. 4.00 - 4.60
Redist., USP, dms. lb. 4.25 - 5.25
Perchloroethylene, dms., c.l., or t.l., dlvd lb. .13½- —
dms., l.c.l., dlvd. lb. .15¼- —
tanks, dlvd. lb. .11¾- —
tanktruck, 1,000 gal. min. dlvd lb. .12¼- —
Peri acid, dry, bbls., frt. alld lb. 1.60 - —
Paste, bbls., frt. alld lb. 1.55 - —
Peru balsam, dms. lb. 1.10 - 1.50
Persic oil, USP (see Apricot kernel oil).
Petitgrain oil, South American, cns., dms lb. 2.50 - 3.25
Petrolatum, cream, dms., c.l., refy. lb. .06125- —
dms., l.c.l., dlvd. lb. .10125-.11375
tanks, refy. lb. .05875- —
Extra amber, dms., c.l., refy lb. .07125- —
dms., l.c.l., dlvd. lb. .09125-.10375
tanks, refy. lb. .04875- —
Petrolatum, lily white, dms., c.l., refy lb. .08625- —
dms., l.c.l., dlvd. lb. .10625- .12
tanks, refy. lb. .06735- —
USP, snow white, dms., c.l., refy. lb. .09125- —
dms., l.c.l., dlvd lb. .11125- .125
tanks, refy. lb. .06875- —
Petrolatum, USP, soft yellow, dms., c.l., refy lb. .07125- —
dms., l.c.l., dlvd. lb. .095 - .10375
tanks, refy. lb. .04875- —
Petroleum pitch (see Asphalt, petroleum).

PETROLEUM PRODUCTS
Petroleum product quotations are listed individually. For example, prices on Petroleum, mineral spirits, may be found in the M's under Mineral spirits, petroleum.

Petroleum sulfonate, oil soluble, 60-62% sulfonic content, non-ret. dms., c.l., works. lb. .16½- .18¾
non-ret. dms., l.c.l., works lb. .17½- .19
tanks, works lb. .14½- .17
50-55%, sulfuric content, non-ret. dms., c.l., works lb. .16 - —
non-ret. dms., l.c.l., works lb. .17 - —
tanks, works lb. .13 - —
o-Phenetidine, dms., c.l., frt. alld. E lb .91 - —
dms., l.c.l., same basis lb. .93 - —
p-Phenetidine, dms., c.l., frt. alld. lb. 1.05 - —
dms., same basis lb. 1.08 - —
Phenobarbitol, USP, dms., 100-lbs., frt. alld lb. 3.25 - —
Phenobarbital-Sodium (see sodium phenobarbital).
Phenol, 90-92% (cresol 8-10%), non-ret. dms., frt. alld. E. of Rockies lb. .16¾- —
non-ret. dms., l.c.l., same basis. lb. .17¾- —
tanks, same basis lb. .14¾- —
82-84% (cresol 16-18%) non-ret. dms., c.l., same basis lb. .16½- —
non-ret dms., l.c.l., same basis. lb. .17½- —
tanks, same basis lb. .14½- —
30°C., or above, tar dist., non-ret. dms., c.l., same basis lb. .18 - —
non-ret. dms., l.c.l., same basis. lb .19 - —
tanks, same basis lb. .16 - —
USP, syn., dms., c.l., t.l., frt. alld lb. .18½- —
dms., same basis lo. .20½- —
tanks, same basis lb. .16½- —
Phenolphthalein, USP or yellow, 250-lb. dm., 2,000 lbs., frt. alld lb. 1.30 - —
250-lb. dm., same basis lb. 1.35 - —
Phenothiazine drench, fib. dms., t.l., dlvd lb. .44 - —
fib. dms., l.t.l., same basis lb .47 - —
NF, fib. dms., t.l., same basis lb. .43 - —
fib. dms., l.t.l. same basis lb. .46 - —
Phenyl acetate, dms., 100-lb. lots, works lb. .50 - —
Phenyl salicylate (see Salol).
Phenylacetaldehyde, soln., 50%, bots. lb. 2.35 - —
100%, bots. lb. 4.00 - 4.65
Phenylacetic acid, pure, cryst., cns. lb. 1.25 - 1.75
dl-Phenylalanine, dms., works lb. 27.00 -37.50
l-Phenyl-3-carbethoxy pyrazolone-5, fib. dms., 200-lb. lots, dlvd. E lb. 3.45 - —
fib dms., smaller lots, dlvd. E lb. 3.80 - —
N-Phenyldiethanolamine, dms., c.l., dlvd. E lb. .41 - —
dms., l.c.l., dlvd. E. lb. .42½- —
tanks, dlvd. E. lb. .38½- —
m-Phenylenediamine, dms., frt. alld. lb. 1.10 - —
o-Phenylenediamine, coml. fib. dms, 100 to 1,000 lbs., works. lb. 1.70 - 1.80
p-Phenylenediamine, tech., dms, works lb. 1.55 - —
Phenylethanolamine, dms., c.l., works lb. .75½- —
dms., l.c.l., same basis lb. .77 - —
Phenylethyl acetate, bots. lb. 1.25 - 1.40
2-Phenylethyl alcohol, extra, dms. lb. 1.14 - 1.50
Standard, dms. lb. 1.10 - 1.60
b-Phenylethylamine, dms., 20,000 lbs. or more, frt. alld lb. 1.50 - —
dms., smaller lots, frt. alld lb. 1.70 - 1.85
Phenylethylphenyl acetate, bots lb. 4.00 - 4.25
Phenylglyconic acid (see Mendelic acid).
Phenylhydrazine, 97%, 450-lb. dms. lb. 1.45 - —
1-Phenyl-3-methyl pyrazolone-5, fib. dms., 250-lb. lots, dlvd. E. lb. 1.80 - —
fib. dms., smaller lots, dlvd. E lb. 2.10 - —
o-Phenylphenol, dms., l.c.l., works. lb. .48 - .50
p-Phenylphenol, bgs., c.l., works lb. .38½- —
bgs., l.c.l., works lb. .43 - —



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Anhydrous Sodium Orthosilicate

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least dusty,
most free-flowing,
orthosilicate
you can buy!

1885—75th Anniversary—1960

Cowles CHEMICAL COMPANY

7018 Euclid Avenue, Cleveland 3, Ohio

Philippine copal gum, pale, chips, bgs.	lb.	.23¾-	.26
nubs, bgs.	lb.	.33¼-	.37
seeds, bgs.	lb.	.20	Nom.
sorts, bgs.	lb.	.20 -	.24
Phloroglucinol, coml., fib. dms., works	lb.	6.40 -	—
CP, bots., works	lb.	17.75 -	—
Tech., fib. dms., works	lb.	10.45 -	—
Phloxin red toner (see Eosin red toner).			
Phosgene, ret. cyls., works	lb.	.15½-	—
Phosphate, defluorinated (see under D).			
Phosphate rock, Curaçao, Atlantic ports, New Orleans	ton.	48.00 -	—
Phosphate rock, Florida, land pebble, run-of-mine, washed, dried, unground, 66-68%, b.p.l., bulk, c.i., mines.	short-ton.	4.798 -	—
68-70%, b.p.l., bulk, c.i., same basis	short-ton.	5.148 -	—
70-72%, b.p.l., bulk, c.i., same basis	short-ton.	5.723 -	—
74-75%, b.p.l., bulk, c.i., same basis	short-ton.	6.628 -	—
76-77%, b.p.l., c.i., bulk, same basis	short-ton.	7.518 -	—
Above Florida prices are based on fuel oil at $2.37 per bbl. and labor at $1.59.			
Phosphoric acid, food grade, 75%, cbys., c.l., works, E., frt. equald	100 lbs.	7.00 -	—
cbys., l.c.l., same basis	100 lbs.	7.25 -	7.75
tanks, t.w., works	100 lbs.	5.60 -	—
80%, cbys., c.l., frt. equald	100 lbs.	7.85 -	—
cbys., l.c.l., works	100 lbs.	8.10 -	9.35
tanks, t.w., works	100 lbs.	6.00 -	—
NF, 85%, cbys., c.l., works.	100 lbs.	8.50 -	—
cbys., l.c.l., works	100 lbs.	8.75 -	9.00
tanks, t.w., works	100 lbs.	6.65 -	—
Phosphorus, amorph., red, dms., t.l., works	lb.	.55 -	—
dms., smaller lots, works	lb.	.56 -	.57
white (yellow), solid, dms., c.l., works, frt. equald	lb.	.20 -	.20½
dms., l.c.l., works, frt. equald	lb.	.21½-	—
tanks, works, frt. equald.	lb.	.19 -	—
Phosphorus oxychloride, dms., c.l., works	lb.	.14 -	—
dms., l.c.l., works	lb.	.15 -	—
tanks, works	lb.	.12½-	—
Phosphorus pentasulfide, powd., dms., c.l., works	lb.	.13½-	—
dms., l.c.l., works	lb.	.14½-	.15½
Solid, dms., c.l., works	lb.	.11½-	—
dms., l.c.l., works	lb.	.12½-	.13½
Phosphorus pentoxide, dms., c.l., works	lb.	.1375-	.1475
dms., l.c.l., works	lb.	.1475-	.1675
Phosphorus sesquisulfide, dms., c.l., works	lb.	.38 -	—
dms., l.c.l., works	lb.	.39 -	.40
Phosphorus trichloride, dms., c.l., works	lb.	.14 -	—
dms., l.c.l., works	lb.	.15 -	—
tanks, works	lb.	.12½-	—
Phthalic anhydride, bgs., c.l., works, frt. equald	lb.	.17 -	.21
bgs., l.c.l., same basis	lb.	.18 -	.22
tanks, same basis	lb.	.16½-	.20½
Phthalimide, 97-98%, dms., frt. alld	lb.	.65 -	—
Phthalocyanine blue, full strength, bbls., divd. E. of Rockies.	lb.	2.90 -	—
Resinated, bbls., same basis	lb.	2.75 -	—
Water dispersable, bbls., same basis	lb.	1.52 -	—
Pythalocyanine blue prices 1c. higher W. of Rockies.			
Phthalocyanine green toner, bbls., works	lb.	3.35 -	—
Resinated, bbls.	lb.	3.00 -	—
Water dispersable, bbls.	lb.	1.71 -	—
Phthalocyanine green prices 1c. higher W. of Rockies.			
Phthalylsulfacetamide, fib. dms., 1-000-lb. lots or more	lb.	5.00 -	—
NF, fib. dms.	lb.	5.20 -	—
a-Picoline, dms., c.l., works, frt. equald	lb.	.43 -	.43¼
dms., l.c.l., works, frt. equald	lb.	.44 -	—
tanks, same basis	lb.	.415 -	—
b-Picoline, 98%, dms., t.l., works.	lb.	1.05 -	—
dms., l.c.l., same basis	lb.	1.15 -	—
tanks, same basis	lb.	.95 -	—
b,g-Picoline, 5°C, dms., c.l., works.	lb.	.32¼-	—
dms., l.c.l., works	lb.	.33 -	—
g-Picoline, dms., f.o.b., works	lb.	1.60 -	—
tanks, t.l., same basis	lb.	1.50 -	—
Picric acid, NF, bbls.	lb.	.85 -	—
Tech., bbls.	lb.	.44 -	—
Pigment green B, kgs.	lb.	1.50 -	—
Pilocarpine hydrochloride, USP, bots.	oz.	5.23 -	—
Pilocarpine nitrate, USP, bots., vials.	oz.	5.15 -	—
Pimento, Jamaican, bgs.	lb.	.68 -	—
Mexican, bgs.	lb.	.57 -	—
Pimento berry oil, NF, dms.	lb.	3.75 -	9.25
Pimento leaf oil, crude, cns.	lb.	2.20 -	2.60
Pine oil, dest.-dist., dms., l.c.l. works	lb.	.15 -	—
dms., l.c.l. ex whse. New York.	lb.	.173 -	—
Steam-dist., dms., ex whse., New York	lb.	.185 -	—
dms., dlvd.	lb.	.188 -	—
Pineneedle oil, Siberian (see Abies Siberoca oil).			
Pinetar, retort, dms., c.l., works	lb.	.0611-	—
dms., l.c.l., works	lb.	.0684-	—
dms., c.l., ex whse., New York.	lb.	.0795-	—
tanks, works	lb.	.0511-	—
Pinetar oil, coml., dms., c.l., works.	lb.	.0611-	—
dms., l.c.l., works	lb.	.0684-	—
dms., c.l., ex whse., New York.	lb.	.0795-	—
tanks, works	lb.	.0511-	—
NF, rectified, dms., incl., l.c.l., works, South	lb.	.40 -	—
dms., l.c.l., ex whse., New York	lb.	.41¼-	—
Refd., dms., incl., l.c.l., works	lb.	.35 -	—
dms., incl., l.c.l., ex whse, New York	lb.	.36¼-	—
Pink root, bls.	lb.	1.75 -	—
Piperazine, anhyd., dms., c.l., frt. alld	lb.	1.80 -	—
dms., l.c.l., same basis	lb.	1.85 -	—
Piperazine citrate, 36%, dms., 1,000 lbs. or more, frt. alld	lb.	1.15 -	—
Piperazine dihydrochloride, 51%, dms., 1,000 lbs. or more, frt. alld	lb.	1.23 -	—
Piperazine hexahydrate, 44%, dms., 1,000 lbs or more, frt. alld	lb.	.86 -	—
dms., 200-900 lbs., frt. alld	lb.	.89 -	—
Piperazine phosphate, 42%, dms., 1,000 lbs. or more, frt. alld	lb.	1.06 -	—
Piperidine, dist., 96% min., dms., frt. equald	lb.	2.60 -	—
Piperonyl butoxide, dms., dlvd. E.	lb.	4.50 -	5.05

PITCHES

Pitch quotations are listed individually For example, prices on Pitch, soybean, may be found in the S's under Soybean pitch.

Plaster of Paris (see Gypsum).			
Platinum metal, works	oz.	81.00 -	85.00
Pleurisy root, bls.	lb.	.45 -	.50
Podophyllum resin, NF, dms.	lb.	12.50 -	—
Poke root, bls.	lb.	.19 -	.22
Polymyxin, bots., bulk., 50 billion units or more	1,000,000 units.	.82 -	—
bulk, bots., 25-50 billion units.	1,000,000 units.	.54 -	—
bulk, bots., 1-25 billion units.	1,000,000 units.	.56 -	—
Polyoxyethylene sorbitan monostearate, dms., 20,000-lb. lots, works	lb.	.42 -	—
dms., 10,000-20,000-lb. lots, works.	lb.	.44 -	—
dms., smaller lots, works	lb.	.47 -	.49
Polyoxyethylene sorbitan tristearate, dms., 20,000-lb. lots, works	lb.	.42 -	—
dms., 10,000-20,000-lb. lots, works	lb.	.44 -	—
dms., smaller lots, works	lb.	.47 -	.49
Pontianak copal gum, chips, bgs.	lb.	.23 -	—
Nubs, bgs.	lb.	.37 -	.40
Poppy seed, Argentine, bgs.	lb.	No stocks.	
Dutch, bgs.	lb.	.22 -	—
Danish, bgs.	lb.	.20½-	—
Polish, bgs.	lb.	.20 -	—
Turkish, bgs.	lb.	.17½-	—
Potash, caustic, liq., 45% basis, dms., c.l., works	100 lbs.	4.25 -	—
dms., l.c.l., same basis	100 lbs.	5.05 -	—
tanks, same basis	100 lbs.	3.70 -	—
reg., flake, 83-92%, dms., c.l., same basis	100 lbs.	9.15 -	—
reg., flake, 88-92%, dms., l.c.l., same basis	100 lbs.	10.20 -	—
solid, 88-92%, dms., c.l., works.	100 lbs.	8.70 -	—
dms., l.c.l., works	100 lbs.	9.75 -	—
Potassium acetate, NF, 200-lb. dm., f.o.b. works, E.	lb.	.31 -	—
Potassium bicarbonate, USP, gran. dms.	lb.	.22 -	—
powd., dms.	lb.	.24 -	—
Potassium bichromate, gran., bgs., c.l., t.l., works	lb.	.18 -	—
bgs., l.c.l., works	lb.	.18½-	.19¾
Potassium bichromate in dms. ¾c. higher.			
Potassium bitartrate, NF, gran., powd., 100-lb. bgs., c.l., frt. equald	lb.	.37 -	—
100-lb. bgs., 5,000 lbs., 1 shipt., same basis	lb.	.38 -	—
100-lb. bgs., smaller lots, same basis	lb.	.40 -	—
Potassium borohydride, powd., dms., works	lb.	16.00 -	22.00
Pelletized potassium borohydride $1.25 per lb. higher in 1,000-lb. lots.			
Potassium bromate, dms., 1,000-lb. lots or more, works	lb.	.50 -	—
dms., smaller lots, works	lb.	.52 -	.62
Potassium bromide, USP, gran., bbls., kgs	lb.	.39 -	.40
Potassium carbonate, dom., NF, gran., bbls., dms	lb.	.20 -	—
Dom., tech., powd., bbls., dms	lb.	.21 -	.23
Dom., calcinated, bgs., c.l., works.	100 lbs.	8.50 -	—
bgs., l.c.l., same basis	100 lbs.	9.55 -	—
Dom., hydrated, 83-85%, bgs., c.l., works	100 lbs.	7.10 -	—
bgs., l.c.l., works	100 lbs.	8.15 -	—
Potassium chlorate, cryst., dms., c.l., works	lb.	.12¼-	—
dms., l.c.l., works	lb.	.13½-	.14½
Powd., dms., c.l., works	lb.	.12¾-	—
dms., l.c.l., works	lb.	.14 -	.15
Potassium chlorate, NF, cryst., dms., 2,000 lbs. or more, works	lb.	.16¼-	—
NF, gran., 25-lb. metal dms	lb.	.36 -	—
NF, powd., dms., 2,000 lbs. or more, works	lb.	.17¼-	—
Potassium chloride, indust., 99.9% KCL, bulk, c.l., works	ton.	27.00 -	—
bgs., c.l., works	ton.	31.50 -	—
99.3% KCL, bulk, c.l., works.	ton.	26.00 -	—
bgs., c.l., works	ton.	30.50 -	—
USP, cryst., dms.	lb.	.20 -	.22
USP, gran., dms.	lb.	.21 -	.23
USP, powd., dms.	lb.	.24 -	.26
Potassium chloride agricultural (see Potassium muriate).			
Potassium chromate, tech., dms., works	lb.	.50 -	.51
Potassium citrate, NF, gran., 250-lb. dms., f.o.b. works E.	lb.	.43 -	—
powd., 250-lb dms., same basis.	lb.	.44 -	—
Potassium cyanide, dms., 20,000-lb. lots or more, works	lb.	.42½-	—
dms., 2,000-19,999-lb. lots, works.	lb.	.43 -	—
dms., smaller lots, works	lb.	.44 -	.44½
Potassium dichromate (see Potassium bichromate).			
Potassium ferricyanide, dms., ton lots, works	lb.	.50 -	—
dms., smaller lots, works	lb.	.65 -	—
Potassium ferrocyanide, dms., ton lots	lb.	.24½-	—
dms., smaller lots	lb.	.29 -	—

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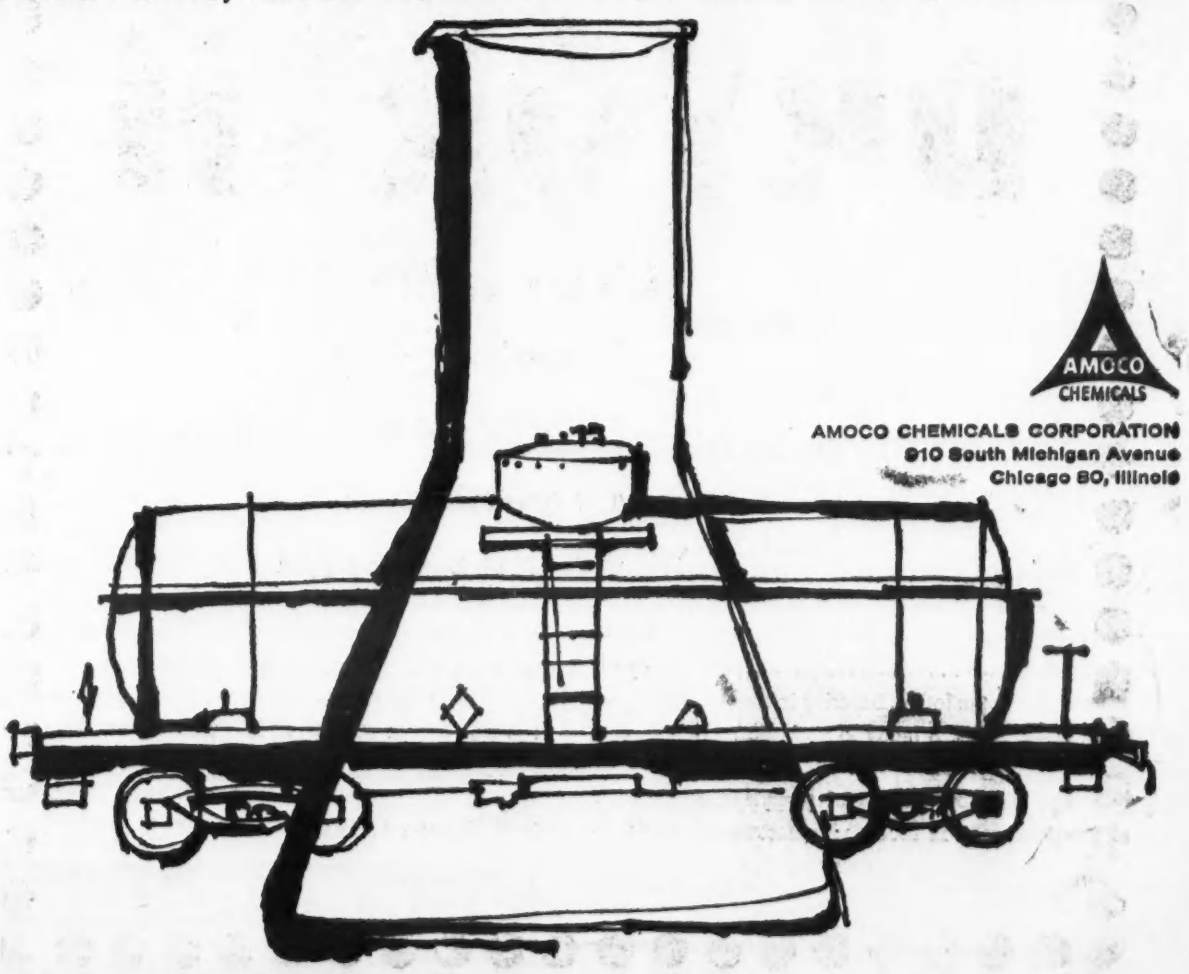

AMOCO CHEMICALS

AMOCO CHEMICALS CORPORATION
910 South Michigan Avenue
Chicago 80, Illinois

Potassium Fluoborate—Rauwolfia Serpentina Root

Potassium fluoborate, fib. dms., c.l., works lb. .30 - —
fib. dms., l.c.l., works lb. .31 - —
Potassium fluoride, dms., works lb. .37 - .38
Potassium gluconate, 100-lb. dm., f.o.b. works E lb. 1.67 - —
Potassium guaiacol sulfonate, NF, dms lb. 2.10 - 2.30
Potassium hydroxide, tech. (see Potash caustic).
Potassium hydroxide, USP, pellets, 100-lb. dms., 1 to 100-dm. lots lb. .33½- .38
Potassium hypophosphite, NF, fib. dms., 1,000-lb. lots lb. 1.38 - —
Potassium iodide, USP, cryst., gran., or powd., 250-lb. dm., f.o.b. works lb. 1.40 - —
Potassium manure salt, 22% K_2O, bulk, c.l., works unit-ton. .17 - .1765
Potassium metabisulfite, gran., dms., lb. .16 - —
Powd., dms. lb. .27 - —
Potassium muriate, standard, bulk, c.l., works unit-ton. .34½-.36½
bagged 60% minimum K_2O, same basis ton.25.60 -26.80
Gran., bulk, c.l., works unit-ton. .35 - .37
bagged, 60% minimum K_2O, same basis ton.25.90 -27.10

Inside prices apply to material contracted for prior to July 1, 1959.

Outside prices apply to material contracted for after that date but also for delivery during the current month.

Potassium nitrate, NF, cryst., bbls., 20-ton lots 100 lbs 17.00 - —
bbls., smaller lots 100 lbs.18.00 -19.00
gran., bgs., 20-ton lots 100 lbs. 9.50 - —
bgs., smaller lots 100 lbs.11.00 -12.00
powd., bgs., 20-ton lots 100 lbs.10.50 - —
bgs., smaller lots 100 lbs.12.00 -13.00
Potassium oxalate, neutral, tech., fine gran., powd., 300-lb. dm., f.o.b. works E lb. .32 - —
Potassium pentaborate, gran., dms., c.l., works ton.219.50 - —
dms., ton lots, ex whse ton.311.00 - —
dms., smaller lots, ex whse ton.316.00 - —

Powdered potassium pentaborate $10 per ton higher.

Potassium perchlorate, dms., c.l., works lb. .18½- —
dms., l.c.l., works lb. .19 - .20
Potassium permanganate, coml., kgs., works lb. .25 - .33
USP, dms., works lb. .29 - .35
Potassium persulfate, dms., c.l., works lb. .17½- —
dms., l.c.l., works lb. .18 - .21
Potassium pyrophosphate, tetrabasic, dms., works lb. .15½- .18½
Potassium prussiate red (see Potassium ferrocyanide).
Potassium prussiate yellow (see Potassium ferrocyanide).

Potassium silicate, electrical grade, 30° Be, 1:2.0, dms., c.l., works 100 lbs. 6.50 - —
dms., l.c.l., 5 dm. lots or more, works 100 lbs. 7.25 - 7.65
tanks, works 100 lbs. 6.15 - —
Potassium silicate, electrical grade, 40.5° Be, 1:2.1, dms., c.l., works 100 lbs. 5.95 - —
dms., l.c.l., 5 dm. lots or more, works 100 lbs. 6.70 - —
tanks, works 100 lbs. 5.60 - —
Glass grade, bgs., c.l., works. 100 lbs.17.30 -18.00
bgs., l.c.l., works 100 lbs.17.80 - —
Soln., 29° Be, 1:2.5, dms., c.l., works 100 lbs. 4.95 - —
dms., l.c.l., 5-dm. lots or more, works 100 lbs. 5.70 - —
tanks, works 100 lbs. 4.60 - —
Potassium silicofluoride, bgs., works. lb. .09½- .10

Potassium silicofluoride in drums, 0.4c. per lb. higher.

Potassium stannate, dms., frt. alld. E lb. .776 - .848
Potassium sulfate, agricultural, bulk, c.l., works unit-ton. .67½- .69½

Inside price applies to tonnage contracted for prior to July 1, 1959.

Outside price applies to tonnage contracted for after that date but also for delivery during the current month.

Potassium sulfate, NF VII, cryst., dms., lb. .31 - .33
NF VII, gran., dms lb. .18½- —
NF VII, powd., dms lb. .16 - .17
Potassium sulfocyanate, NF, cryst., (see Potassium thiocyanate).

Potassium thiocyanate, NF, cryst., dms., works lb. .84 - .86
Tech., dms., works lb. .77 - .79
Potassium titanate, ctns., c.l., works. lb. .16¼- —
ctns., 5-ton lots, works lb. .16½- —
ctns., 1-ton lots or less, works lb. .16¾- —
Potassium-magnesium sulfate, basis 40% K_2SO_4 and 18% MgO, bulk, works, base price. ton.13.45 - —
bulk, works, July forward ton.14.00 - —
Potassium-sodium tartrate, NF, gran. or powd., 250-lb. dms., c.l., works E lb..42½- —
250-lb. dms., 5,000-lb. lots, same basis lb. .43 - —
250-lb. dms., same basis lb. .43½- —
Potassium-titanium fluoride, fib. dms., works lb. .39 - .40
Potassium-zirconium flouride, fib. dms., c.l., works lb. .50 - —
fib. dms., l.c.l., works lb. .52½- .55
Pregnenolone, bots. gram. No prices.
Pregnenolone acetate, bots. gram. No prices.
Procaine hydrochloride, USP, antibiotic grade, dms., 2,000-lb. lots, frt. alld lb. 2.25 - —
USP, ampule grade, dms., 1,000 lbs. lb. 2.40 - —
dms., 500 lbs lb. 2.45 - —
dms., 100 lbs lb. 2.50 - —
Progesterone, USP, bots gram. No prices.
Pregnenolone acetate, bots gram. No prices.
Propenyl guaethol, dms. lb.24.30 -27.60
b-Propriolactone, dms., c.l., t.l., f.o.b. works lb. .89 - —
dms., l.c.l., l.t.l., same basis lb. .90 - —
tanks, same basis lb. .87 - —
Propionic acid, syn., pure, dms., c.l., works lb. .23¼- —
dms., l.c.l., works lb. .24¾- —
tanks, works lb. .20¾- —
n-Propyl acetate, dms., c.l., dlvd. lb. .14¾- —
dms., l.c.l., dlvd lb. .16¼- —
tanks, dlvd. lb. .12¼- —
n-Propyl alcohol, dms., c.l., dlvd lb. .14 - .15
dms., l.c.l., dlvd lb. .15½- .16½
tanks, dlvd. lb. .11½- .12½
n-Propyl gallate, dms., 100 to 2,000-lb. lots, works lb. 3.90 - 4.40
n-Propyl-p-hydroxbenzoate, USP, dms lb. 2.30 - 2.40
Propyl thiouracil, bots., 50 kilo lots or more kilo.55.00 - —
bots., smaller lots kilo.55.10 -55.30
n-Propylamine, dms., c.l., dlvd lb. 1.24 - —
dms., l.c.l., same basis lb. 1.255 - —
n-Propylene dichloride, consumers', dms., c.l., dlvd. E lb. .0845- —
dms., l.c.l., same basis lb. .0995- —
tanks, same basis lb. .07 - —

Propylene dichloride prices in West 1c. higher, same basis.

Propylene glycol, indust., dms., c.l., dlvd. E lb. .15 - —
dms., l.c.l., same basis lb. .16¾- —
tanks, same basis lb. .12½- —
USP, dms., c.l., dlvd. E lb. .17 - —
dms., l.c.l., same basis lb. .18¾- —
tanks, same basis lb. .14½- —
Propylene glycol methyl ether, dms., c.l., dlvd lb. .20 - —
dms., l.c.l., same basis lb. .21 - —
tanks, same basis lb. .18½- —
Propylene oxide, dms., c.l., dlvd. E. lb. .17 - —
dms., l.c.l., dlvd. E lb. .18½- —
tanks, dlvd. E lb. .14½- —
Psyllium seed, black, bgs lb. .30 - .35
Blonde, bgs. lb. .18 - .20
Husks, bgs. lb. .42 - .45
Pumice, dom., grd., coarse to fine, 0, ½, 1, 1½, 2, 3, bgs., ton lots lb. .03⅝- .04¼
bgs., smaller lots lb. .03⅞- —
Imp., Italian, silk-screen, coarse, bgs, ton lots lb. .06½- —
fine, bgs., ton lots lb. .04 - —
sun dried, coarse, bgs ton.60.00 - —
fine, bgs. ton.60.00 -70.00
Pumpkin seed, bgs lb. .25 - .26
Pyrethrins, syn. (see Allethrin).
Pyrethrum flowers, fine grd., 0.9% pyrethrins, bgs., ton, works lb. .50 - —
Powd., 1.3% pyrethrins, bgs., ton, works lb. .71 - —
Pyrethrum liquid, 20/1 basis (2 grams pyrethrins per 100cc odorless base), dms., works, gal. 9.60 - 9.80
Pyrethrum liquid, 100/1 basis (10 grams pyrethrine per 100cc odorless base), dms., works gal.45.90 -46.90
Pyrethrum oleoresin, dewaxed, 20%, dms., works lb.11.00 -11.35
purif, 20%, dms., works lb.11.00 -11.35
Pyridine, denat., dms., c.l., works and frt. equald gal. 2.55 - —
dms., l.c.l., same basis gal. 2.70 - —
Refd., 2°, non-ret. dms., l.c.l., same basis lb. .70 - —
tanks, same basis lb. .65 - —
Pyridoxine hydrochloride, USP, 500-gram bots., dms., f.o.b. works kilo.175.00 - —
Pyrites, Canadian, 48-50% S, mines, long-ton. 5.00 - 6.00
Pyrocatechol (see Catechol).
Pyrogallic acid, NF (see Pyrogallol).
Pyrogallic acid, tech., bbls., 100-lbs., f.o.b., works lb. 3.50 - —
Pyrogallol, NF, 100-lb. dms lb. 3.50 - —
Pyroxylin, USP, bots lb. 2.50 - —

Q

Quassia chips lb. .10 - —
Quicksilver (see Mercury metal).
Quince seed, bgs lb. 1.30 - 1.40
Quinidine sulfate, USP, 1,000-oz. dm. oz. .74½- —
Quinine, NF, 1,000-oz. dm oz. .3105- —
Quinine bisulfate, USP, 1,000-oz. dm. oz. .2330- —
Quinine hydrochloride, 1,000-oz. dm. oz. .3030- —
Quinine sulfate, USP, 1,000-oz. dm. oz. .2575- —
Quinoline, dms., c.l., frt. equald lb. .50¾- —
dms., l.c.l., same basis lb. .51¼- —
tanks, same basis lb. .50 - —

R

R salt paste, dms., frt. alld., 100% basis lb. .98 - —
Powd., frt. alld, 100% basis lb. 1.08 - —
Rapeseed oil, dms lb. .15 - .15¼
tanks lb. .13 - —
Rare earth oxalate, NF, 45-50%, bgs, works lb. 1.15 - —
Rauwolfia serpentina root, powd., bbls., dms. lb. 1.00 - 1.20

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JEFFERSON CHEMICALS

Red carmine, No. 40 (see Carmine).
Red oil (see Oleic acid).

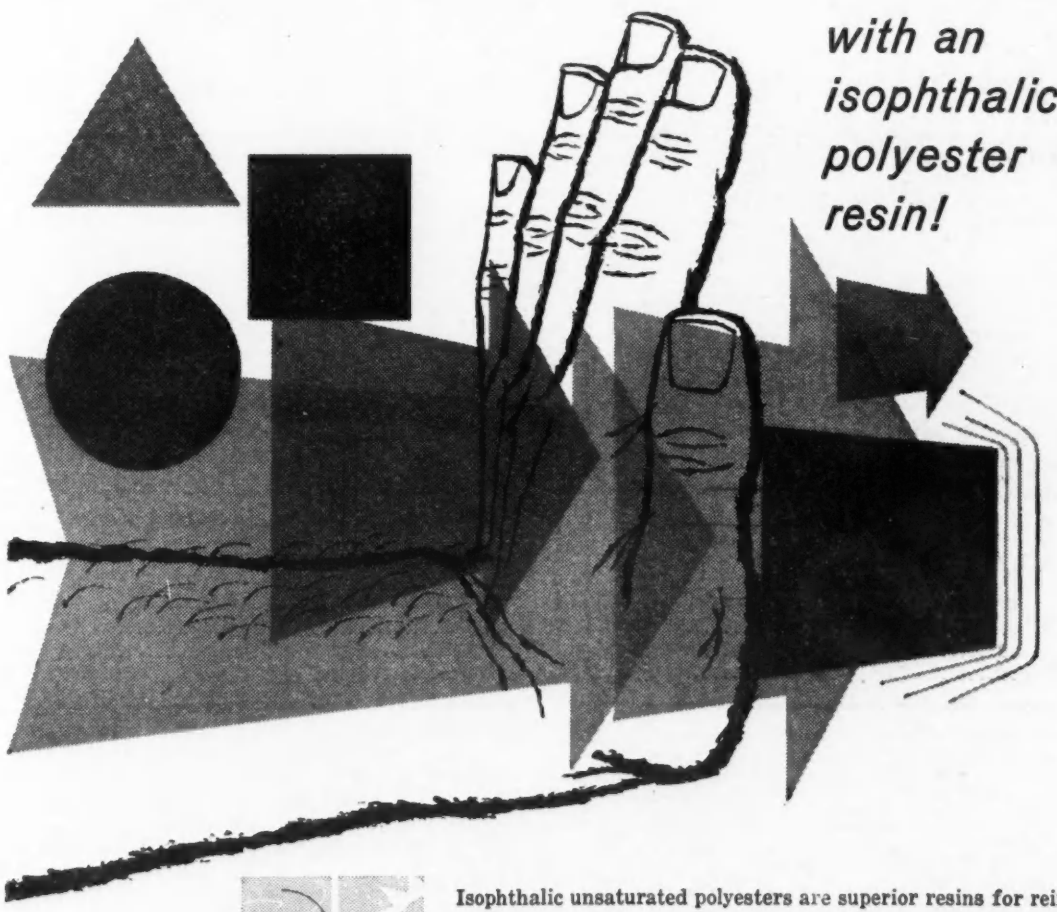
RED PIGMENTS
Red pigment quotations are listed individually. For example, prices on Red, lithol toner, may be found in the L's under Lithol red toner.

Red precipitate (see Mercuric oxide, red).
Red toner, Lake C, alizanine, bbls., works lb. 1.25 - —
Reserpine, cryst., bots gram. 1.25 - —
Resorcinol, tech grade, dms., c.l., works, frt. equald lb. .77¼- —
dms., l.c.l., same basis lb. .78½- —
USP, powd., dms., works lb. 2.95 - —
Resorcinol monoacetate, NF, dms. lb. 2.50 - —
Rhatany root, bgs lb. .14 - .16
Rhodamine red toner, molybdated, PMA, kgs., works lb. 6.00 - —
Tungstated, PTMA, works, kgs lb. 6.60 - —
Rhodinol, 5-lb. cans lb.42.00 -51.00
Synthetic lb.14.00 -16.00
Rhubarb root, India, whole, bgs lb. .25 - —
powd., bgs. lb. .35 - —
Riboflavin, USP, fib. dms., kilo or more, dlvd kilo.36.00 - —
Riboflavin, USP, readily soluble, lots, dlvd kilo.13.00 - —
Riboflavin, 5-phosphate-sodium, fib. dms., kilo or more, dlvd. kilo.104.50 - —
Rice bran oil, clarified, dms., l.c.l. lb. .14½- .15
tanks, dlvd. E lb. .12½- —
Ricinoleic acid (see Castor oil acids split).
Rochelle salt (see Potassium-sodium tartrate)
Roofing pitch (see Coaltar pitch roofing).
Rose oil, nat., Bulgarian, bots oz.72.00 - —
Turkish, bots. oz.55.00 -58.00
Rosemary oil, Spanish, NF, cns., dms lb. .97 - 1.40
Spanish, tech., cns., dms lb. .50 - 1.20
Rosin gum and wood (see Naval Stores in Protective Coatings market).
Rotenone, fib. dms., works unit-lb. .12 - —
Resin, 25-45%, fib. dms., works. unit-lb. .12 - —
Rottenstone, bgs., 5-ton lots, exwhse lb. .03¾- —
bgs., ton lots, same basis lb. .04¼- —
Rubber solvent, petroleum, 115°F-245°F b.r., tankcars, New Jersey and New York gal. .19 - —
Group 3 gal. .13875- —
Houston, Texas gal. .155 - —
Rue oil, bots lb. 2.75 - 3.00
Rutin, NF, fib. dms., 10 kilo lots. kilo.13.00 - —
fib. dms., 5 kilo lots kilo.13.50 - —
fib. dms., 1 kilo kilo.14.00 - —
Ryania, 100%, powd., bgs., c.l., works lb. .22 - —
bgs., l.c.l., same basis lb. .24 - —

S

S acid, bbls., works lb. 3.25 - —
Sabadilla seed, activated, ground with lime, bbls lb. .42 - .44
Saccharin, calcium, fib. dms., 1,000-lb. lots, works lb. 2.50 - —
USP, gran., soluble, dms., 1,000-lb. lots lb. 1.40 - —
dms., smaller lots lb. 1.50 - —
USP, powd., soluble, insoluble, dms., 1,000-lb. lots lb. 1.45 - —
dms., smaller lots lb. 1.55 - —
USP, powd., insoluble, dms., 1,000-lb. lots lb. 1.43 - —
dms., smaller lots lb. 1.53 - —
Safflower oil, dms., New York lb. .1755- .18
tanks, Atl. Coast lb. .1555- —
Saffron, Mancha Superior, tins lb.19.50 - —
Safrol, dms. lb. .70 - —
Sage, Dalmatian, bgs lb. .40 - —
Greek, cns. lb. .16 - —
Italian, cns. lb. .18 - —
Sage oil, clary, bots lb.16.95 -18.00
Dalmatian, cns. lb. 2.85 - 3.25
Spanish, cns. lb. 1.25 - 1.75
Sal soda (see Soda sal).
Salicylaldehyde, dms., c.l., t.l., f.o.b., plant, frt. equald lb. 1.23 - —
dms., l.c.l., same basis lb. 1.25 - —
Salicylamide, 100-lb. dms lb. 1.05 - —
Salicylic acid, crude, fib. dms., c.l., t.l., frt. alld lb. .37¼- —
fib. dms., l.c.l., frt. alld. on 100 lbs. or more lb. .38½- —
Sublimed, tech., fib. dms., c.l., t.l., dlvd lb. .39¼- —
fib. dms., l.c.l., dlvd lb. .43½- —
USP, cryst., 200-lb. fib. dms., 1,000 lbs. or more lb. .50½- —
200-lb. fib. dms., less than 1,000 lbs lb. .53½- —
100-lb. fib. dms., 1,000 lbs. or more lb. .52½- —
100-lb. fib. dms., less than 1,000 lbs. lb. .55½- —
USP, powd., 100-lb. fib. dms., 1,000 lbs. or more lb. .57½- —
100-lb. fib. dms., less than 1,000 lbs lb. .60½- —
Salol, NF, gran., bbls., kgs lb. 1.20 - —
Powdered salol, 25c. per lb. higher.
Salt, rock, paper bgs., c.l. 100 lbs. 1.09 - —
Salt, table vacuum, common, fine, paper bgs., c.l. 100 lbs. 1.34 - —
Saltcake, dom., bulk, works, 100% Na_2SO_4 basis ton.28.00 - —
Saltpeter (see Potassium nitrate).
Sandalwood, E. Indian, chips, bgs., lb. .55 - .66
powd., fib. dms lb. .75 - .76
Sandalwood oil, cns. lb.18.25 -18.75
Sarcosine, tech., tanks, f.o.b., works, frt. equald lb. 1.03 - —
Sardine oil, crude, tanks, Pac. coast. lb. No stocks.
Sassafras oil, artif., dms lb. .43 - —
Nat., dom., dms lb. 1.45 - 2.15
Savory oil, cns lb. 4.75 - —
Schaeffer's salt, paste, dms., frt. alld. 100% basis lb. .85 - —
Powd., bgs., frt. alld., 100% basis. lb. .95 - —
Scopolamine hydrobromide, USP, bots oz.13.00 - —
Sebacic acid, CP, bgs., c.l., works. lb. .69½- —
bgs., l.c.l., works lb. .71½- —
Purified, bgs., c.l., works lb. .65½- —
bgs., l.c.l., works lb. .67½- —
Seidlitz mixture, fib. dms., 5,000-lb. lots lb. .30½- —
fib. dms., smaller lots lb. .31 - .32
Selenium, powd., 99½%, dms., dlvd. lb. 7.00 - —
Senega root, bls lb. 3.00 - —
Senna leaves, Alexandria, whole and half, bls lb. .20 - .22
siftings lb. .16 - —
Tinnevelly, No. 1, bls lb. .22 - —
No. 2, bls lb. .18 - —
No. 3, bls lb. .14 - —
pods, bls. lb. .28 - —
powd., bbls., bxs lb. .17 - —
Serpentaria root, bls lb. 6.50 - —
Sesame oil, USP, dms lb. .38 - .39
Sesame seed, Colombian, bgs lb. .15¼- —
Lebanese, hulled, bgs lb. .19 - —
Nicaraguan, hulled, bgs lb. .21½- —
nat., bgs. lb. .14 - —
Salvadorian, Nat., bgs lb. .16 - —
Shellac, bleached, bonedry, bgs., 1,500-lb. lots lb. .46 - —
bbls., 1,500-lb. lots lb. .47 - —
kgs., 1,500-lb. lots lb. .48 - —
Bonedry shellacs prices for less than 1,500-lb. lots 1c. per lb. higher for all packages.
Shellac, bleached, refd., bgs., 1,500-lb. lots lb. .56 - —
bbls., 1,500-lb. lots lb. .57 - —
kgs., 1,500-lb. lots lb. .58 - —
Shellac, orange, lemon No. 1, bgs., 10-bg. lots lb. .37 - .39
lemon No. 2, bgs., 10-bg. lots. lb. .34 - .37
superfine, bgs., 10-bg. lots lb. .32 - .34
Shellac in 1 to 10-bg. lots 1c. per lb. more.
Shingle stain oil, tar distillate, dms., c.l., works gal. .37 - —
dms., l.c.l., works gal. .48 - —
tanks, works gal. .25 - —
Sienna pigment, burnt, paper bgs., c.l., works lb. .06½- .18½
paper bgs., l.c.l., works lb. .06¾- .17¾
Raw, paper bgs., c.l., works lb. .06¾- .16¾
paper bgs., l.c.l., works lb. .07 - .17
Silica, amorph., dry-grd., 325 mesh, bgs., c.l., works ton.25.00 - —
bgs., l.c.l., works, ex whse. ton.45.00 -55.00
Silica, hard-quartz, 99½%, 325 mesh, bgs., c.l., works ton.20.00 - —
bgs., l.c.l., works ton.25.00 - —
99½%, 140 mesh, bgs., c.l., works ton.15.00 - —
bgs., l.c.l., works ton.20.00 - —
Silicon tetrachloride, tech., dms., c.l., works lb. .18 - —
dms., l.c.l., works lb. .22 - .30½
tanks, works lb. .17 - —
Silver bullion, ingots, cs Troy oz. .91¾- —
Silver cyanide, bots., 1,000-oz. lots, oz. .94¾- —
bots., 500-oz. lots oz. .95¼- —
bots., 100-oz. lots oz. .96¼- —
Silver nitrate, CP, cryst., bots., 1,000 to 3,000-oz., f.o.b. works oz. .67¼- —
bots., 250-300 oz., same basis. oz. 67¾- —
USP granular silver nitrate 4c. per oz. higher.
Silver proteinate, mild, USP, bots., dms., 1,000-oz. lots oz. 1.15 - —
Strong, NF, bots., dms., 1,000-oz. lots oz. 1.10 - —
Snakeroot oil, Canada, cns lb.40.00 -43.00
Soapbark, crushed, bls lb. .30 - .35
Powd., bls. lb. .35 - .40
Whole, bls. lb. .20 - .25
Soda ash, dense, 58%, paper bgs., c.l., works 100 lbs. 1.90 - —
paper bgs., l.c.l., stock pts., 100 lbs. 3.00 - 4.77
bulk, c.l., works 100 lbs. 1.60 - —
Light, 58%, paper bgs., c.l., works 100 lbs. 1.85 - —
paper bgs., l.c.l., stock pts. 100 lbs. 3.95 - 4.72
bulk, c.l., works 100 lbs. 1.55 - —
Soda, caustic, flake, 76%, dms., c.l., works, frt. equald 100 lbs. 5.20 - —
liq., 50%, sellers' tanks, works, dry basis 100 lbs. 2.90 - —
50%, rayon type, sellers' tanks, works, dry basis 100 lbs. 2.90 - 3.00
Soda, caustic, flake, 73%, sellers' tanks, works, dry basis, 100 lbs. 3.00 - —
liq., 73%, rayon type, sellers' tanks, works, dry basis lb. 3.00 - 3.10
solid, 76%, dms., c.l., works, 100 lbs. 4.80 - —
Soda, sal, conc., bgs., c.l., works. 100 lbs. 2.50 - —
bgs., smaller lots, works 100 lbs. 2.80 - —
Sodium acetate, anhyd., bgs., c.l., dlvd. E lb. .14½- —
NF, 60%, gran., dms., c.l., works. lb. .15½- —
dms., l.c.l., works lb. .17½- —
Sodium alginate, NF, white powd., dom., 300 lbs. or more lb. 1.02 - —
Sodium p-aminosalicylate, dms., 100-lb. lots or more, frt. adjusted lb. 1.90 - —
Sodium antimoniate, bgs., c.l., dlvd. E lb. .27½- —
bgs., l.c.l., dlvd. E lb. .29 - —
Sodium arsenate, 60% arsenic pentoxide, dms., any quantity, f.o.b. works lb. .40 - —
Sodium arsenite, 90% pink powder, 75% arsenious oxide, leaders, dms., ton lots or more, works lb. .17½- —
dms., less than ton lots, works lb. .18 - .19

Push your product **OUT FRONT**



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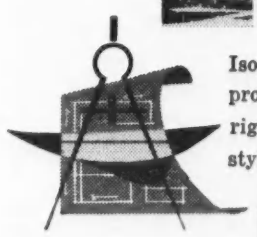
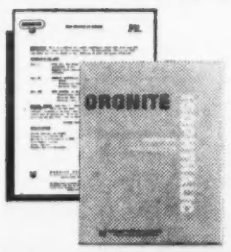
Isophthalic unsaturated polyesters are superior resins for reinforced plastics products — providing greater physical strength, impact resistance; improved flexibility and adhesion; better heat distortion properties — *on exposure to time, temperature, water and weather.*



Isophthalic polyester resins offer manufacturers, designers, engineers and production people improved properties for planning better products to more rigid specifications and convenient production methods. More attractive product styling, better performance and greater reliability are all now possible.



Ask your resin supplier about Isophthalic polyesters or request Isophthalic polyester information and formulations from Oronite. Just contact the Oronite office nearest you.

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Sodium Ascorbate—Sodium Salicylate

Sodium ascorbate, dms., 25-50 kilo dms., f.o.b. works kilo. 10.00 - —
10-kilo dm., same basis kilo. 10.35 - —
5-kilo dm., same basis kilo. 10.75 - —
1-kilo bot., same basis kilo. 11.00 - —

Sodium benzoate, tech, dms., c.l., t.l., frt. alld lb. .35 - —
dms., l.c.l., same basis lb. .39 - —

USP, dms., c.l., t.l., frt. alld lb. .38 - —
dms., ton lots, same basis lb. .43 - —
dms., 1,000-lb. lots, same basis. lb. .45 - —

Sodium bicarbonate, USP, gran., bgs., c.l., works 100 lbs. 2.95 - —
bgs., l.c.l., works 100 lbs. 3.85 - —

USP, powd., bgs., c.l., works, 100 lbs. 2.55 - —
bgs., l.c.l., works 100 lbs. 3.45 - —

Sodium bichromate, gran., bgs., c.l., t.l., works lb. .13 - —
bgs., l.c.l., works lb. .13¼- .14¾
Sodium bichromate in dms. ⅝c. per lb. higher.

Sodium bifluoride, bbls., c.l., works, frt. equald lb. .19½- —
bbls., l.c.l., same basis lb. .2025- —

Sodium bisulfate, bulk, c.l., works, 100 lbs. 2.00 - —
dms., c.l., frt. equald 100 lbs. 3.00 - 3.60
dms., l.c.l., frt. equald 100 lbs. 3.50 - 4.10

Sodium bisulfite, anhyd., bgs., c.l., works 100 lbs. 5.00 - —
bgs., l.c.l., works 100 lbs. 8.45 - —
Soln., 35°, bbls., c.l., works 100 lbs. 1.70 - —
bbls., l.c.l., works 100 lbs. 2.20 - —

Sodium borate (see Borax).

Sodium borohydride, powd., dms., c.l., works lb. 19.90 - —
dms., l.c.l., works lb. 33.60 -40.00

Sodium borohydride, stabilized water soln., 12% NaBH, 100% basis, dms., works lb. 15.00 - —
Pelletized sodium borohydride $1 per lb. higher in 1,000-lb. lots.

Sodium bromide, USP, gran., dms., works lb. .40 - —

Sodium carbonate, cryst., monohydrated (see Soda, sal).

Sodium carbonate, monohydrated, bgs., c.l., works 100 lbs. 3.10 - —
bgs., l.c.l., works 100 lbs. 3.50 - —

Sodium carboxymethyl cellulose (see CMC).

Sodium chlorate, cryst., 250-lb. dms., c.l., works lb. .09 - —
dms., l.c.l., works lb. .09½- .10½

Sodium chlorate in 100-lb. dms., only, ¼c. per lb. higher.

Sodium chloride, tech. (see Salt).

Sodium chloride, USP, gran., bgs. lb. .05 - —

Sodium chlorite, tech., dms., c.l., works lb. .58 - —
dms., 20-dm. lots or more, works. lb. .66 - —
dms., smaller lots, works lb. .70 - .73

Sodium chloroacetate, tech., dms., c.l., works lb. .27 - —
dms., l.c.l., works lb. .28 - —

Sodium chromate, anhyd., fib. dms., c.l., t.l., works lb. .14¾- —
fib. dms., l.c.l., works lb. .15¼- .16½

Sodium chromate tetrahydrate, bgs., c.l., t.l., works lb. .1015- —
bgs., l.c.l. lb. .1065- .1190

Sodium citrate, anhyd., 200-lb. dm., f.o.b. works E lb. .62 - —
NF VIII, gran, bgs., c.l., same basis lb. .26 - —
USP XIV, gran., bgs., c.l., same basis lb. .29 - —

Sodium citrate, USP, powd. prices ½c. higher.

Sodium cyanate, dms., 1,000-lb. lots, works lb. .85 - —
dms., smaller lots, works lb. .90 - 1.10

Sodium cyanide, briquettes or gran., 97 percent min., dms., works, 20,000-lb. lots lb. .176 - —
dms., same basis, 5,000 to 19,999-lb. lots lb. .188 - —
dms., same basis, 1,000 to 4,900-lb. lots lb. .198 - —

Sodium cyclamate, 100-lb. dm., f.o.b. works lb. 1.93 - —

Sodium diacetate, anhyd., 39-41% acetic acid, dms., c.l., works lb. .18 - —
250-lb. dms., l.c.l., works lb. .18¾- —

Tech., 33-35% acetic acid, dms., l.c.l., works lb. .15 - —
250-lb. dms., l.c.l., works lb. .15¾- —

Sodium dimethyl dithiocarbamate, 40% soln., dms., c.l., t.l., frt. alld., 100% basis lb. .42 - —
dms., l.c.l., l.t.l., same basis lb. .47 - .52
tanks, same basis lb. .48 - —

Sodium ferrocyanide, bgs., 10-ton lots lb. .13½- —
bgs., smaller lots lb. .14¼- —

Sodium fluoride, white, 97%, fib. dms., c.l., works, frt. equald lb. .1390- —
fib. dms., l.c.l., works, frt. equald lb. .1465- —

Sodium formate, bgs., c.l., works, 100 lbs. 7.65 - —
bgs., l.c.l., ex whse 100 lbs. 8.65 - —

Sodium gentisate, 100-lb. fib. dms. lb. 5.50 - —

Sodium gluconate, refd., 250-lb. dm., f.o.b. works E lb. .34 - —
Tech., bgs., c.l., t.l., same basis lb. .34 - —

Sodium hydride, 50% soln. in oil, dms., works lb. 1.25 - 2.50
25% soln. in oil, dms., 50 lbs. or less, f.o.b. shipping point. lb. 2.20 - —
dms., 50-99 lbs., same basis lb. 1.77 - —
dms., 100-999 lbs., same basis lb. 1.20 - —
dms., 1,000 lbs. or more, same basis lb. .95 - —

Sodium hydrosulfide (see Sodium sulfhydrate).

Sodium hydrosulfite, dms, c.l., frt. alld. lb. 23½- —
dms., l.c.l., frt. alld. lb. 25¾- —

Sodium hydroxide, NF, pellets, 100-lb. dms., 1 to 100-dm. lots. lb. .23½- .28

Sodium hydroxide, tech. (see Soda, caustic).

Sodium hypophosphite, NF, dms., 1,000-lb. lots lb. .97 - —

Sodium hyposulfite (see Sodium thiosulfate).

Sodium iodide, USP, 300-lb. dms., f.o.b. works lb. 1.98 - —

Sodium lauryl sulfate, dms., c.l., dlvd. lb. .20½- —
dms., l.t.l., dlvd. lb. .21½- —
tanks, dlvd. lb. .19½- —

Sodium lignin sulfonate, bgs., c.l., works 100 lbs. 4.25 - 6.50
l.c.l., bgs., works 100 lbs. 4.40 - 7.00

Sodium metabisulfite (see Sodium bisulfite).

Sodium metaborate octahydrate, gran., bgs., c.l., works ton 210.00 - —
bgs., ton lots, ex whse 100 lbs. 8.00 - —
bgs., smaller lots, ex whse. 100 lbs. 9.25 -11.25
Tetrahydrate, bgs., c.l., works. ton 210.00 - —
bgs., ton lots, ex whse 100 lbs. 13.93 - —
bgs., smaller lots, ex whse. 100 lbs. 15.18 -17.18

Sodium, metallic, bricks, c.l., works. lb. .21 - —
Fused, 18,000-lb. lots or more, works lb. .19½- —
tanks, works lb. .17 - —

Sodium metalinate, bbls., frt. alld. lb. .62 - —

Sodium metaphosphate, bgs., c.l., f.o.b. shipping pt 100 lbs. 11.10 - —
bgs., l.c.l., same basis 100 lbs. 11.85 - —
dms., c.l., same basis 100 lbs. 11.70 - —
dms., l.c.l., same basis 100 lbs. 12.45 - —

Sodium metasilicate, anhyd., bgs., c.l., works 100 lbs. 5.70 - —
bgs., 6,000-19,900 lb. lots, works. 100 lbs. 6.05 - —
dms., c.l., works 100 lbs. 6.20 - —
dms., l.c.l., works 100 lbs. 6.55 - —

Sodium metasilicate pentahydrate, bgs., c.l., works 100 lbs. 4.45 - —
bgs., l.c.l., works 100 lbs. 4.80 - 6.75
dms., l.c.l., works 100 lbs. 4.95 - —
dms., l.c.l., works 100 lbs. 5.30 - 7.25

Sodium molybdate, anhyd., dms., works, frt. equald lb. .92 - .99
Cryst., dms., works, frt. alld. lb. .74 - .76

Sodium monoglutamate (see Monosodium glutamate).

Sodium monohydrate (see Sodium carbonate, monohydrated).

Sodium naphthionate, bbls. lb. .70 - —

Sodium nitrate, dom., crude, bgs., c.l., works ton 48.00 - —
bulk, c.l., works ton 44.00 - —
Imp., crude, 100-lb. bgs., c.l., Atl., Gulf, Pac., whse ton 48.00 - —
bulk, c.l., same basis ton 44.00 - —

Sodium nitrite, USP, bbls., c.l., works, frt. equald 100 lbs. 9.00 - —
bbls., l.c.l., same basis 100 lbs. 11.00 - —

Sodium orthosilicate, conc., dms., c.l., works 100 lbs. 6.70 - —
dms., l.c.l., works 100 lbs. 7.05 - 7.65
Hydrated, flake, bbls., c.l., works. 100 lbs. 5.65 - —
bbls., l.c.l., works 100 lbs. 7.60 - 7.90

Sodium oxalate, 88%, bgs., works. 100 lbs. 12.35 - —
99%, bgs., works 100 lbs. 15.40 - —

Sodium para-aminobenzoate (see Sodium p-aminobenzoate).

Sodium para-aminosalicylate (see Sodium p-aminosalicylate).

Sodium pentachlorophenate, briquets, dms., c.l., works, frt. equald lb. .26 - —
dms., l.c.l., same basis lb. .27½- .34
Pellets, dms., c.l., same basis lb. .26 - —
dms., c.l., same basis lb. .27½- .34
Powd., dms., c.l., same basis lb. .25 - —
dms., l.c.l., same basis lb. .26½- .33

Sodium pentabarbital, USP, dms., 100 lbs. or more lb. 6.00 - —

Sodium perborate, NF, tech., bgs., c.l., works lb. .18½- —
bgs., l.c.l., works lb. .19 - .21

Sodium peroxide, dms., c.l., t.l., dlvd. E. of Miss lb. .21½- —
dms., l.c.l., same basis lb. .22 - .22¼

Sodium phenobarbital, USP, 100-lb. dms lb. 3.75 - —

Sodium phenosulfonate, USP, IX, gran., dms lb. .52 - .53
NF, powd., dms. lb. .55 - .56

Sodium phosphate, dibasic, anhyd., bgs., c.l., frt. equald 100 lbs. 7.95 - —
bgs., l.c.l., same basis 100 lbs. 8.35 - 9.40
Dibasic, cryst., bgs., c.l., t.l., frt. equald 100 lbs. 4.60 - —
bgs., l.c.l., frt. equald 100 lbs. 5.00 - 5.75
Dibasic, duohydrate, bgs., c.l., frt. equald 100 lbs. 7.60 - —
bgs., l.c.l., same basis 100 lbs. 8.10 - —
USP, dried, powd., bgs., dms., works lb. .19 - .20¼
Monobasic, anhyd., bgs., c.l., frt. equald 100 lbs. 9.00 - —
bgs., l.c.l., same basis 100 lbs. 9.40 -10.00
Tribasic, anhyd., bgs., c.l., frt. equald 100 lbs. 9.00 - —
bgs., l.c.l., frt. equald 100 lbs. 9.45 -10.05

Sodium phosphate in dms. 60c. to 80c. higher than bgs.

Sodium picramate, tech., paste, dms., f.o.b. works, frt. equald lb. .90 - —

Sodium propionate, any quantity, dms., dlvd. E. of Rockies. lb. .34½- —
Prices W. of Rockies 3c. per lb. more.

Sodium prussiate, yellow (see Sodium ferrocyanide).

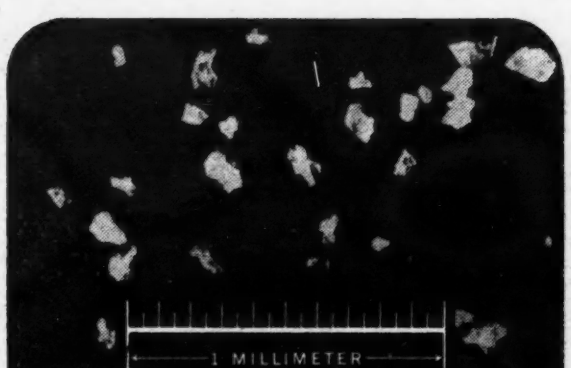
Sodium pyrophosphate acid, bgs., c.l., works, frt. equald. 100 lbs. 11.10 - —
bgs., l.c.l., same basis 100 lbs. 11.85 12.35

Sodium pyrophosphate, ferric, dms., c.l., t.l., works lb. .36 - —
dms., l.c.l., works lb. .37 - .39

Tetrabasic, anhyd., bgs., c.l., works, frt. equald 100 lbs. 7.81 - —
bgs., l.c.l. same basis 100 lbs. 9.21 - 9.71

Sodium salicylate, USP, dms., 1,000-lbs. or more lb. .78½- —
dms., less than 1,000 lbs., dms. lb. .81½- —

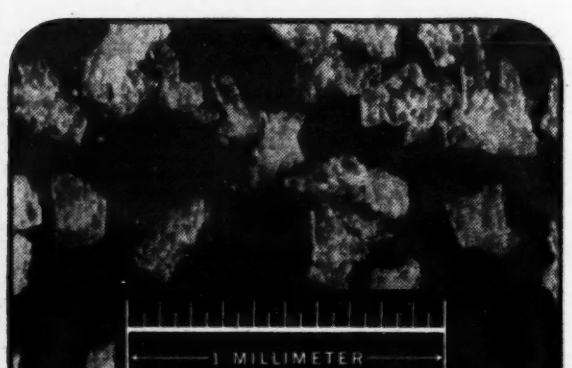
Get Sodium Bicarbonate in the grain size you need every time...
FROM CHURCH & DWIGHT



Sodium Bicarbonate U.S.P. Powdered No. 1—For general purpose use in pharmaceuticals, chemical processing, tooth powder, industrial applications.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

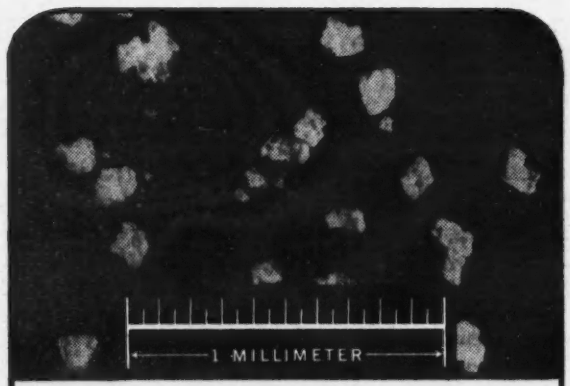
42 Mesh.....Trace	200 Mesh.....85.0%
100 Mesh.....5%	325 Mesh.....70.0%
170 Mesh.....20.0%	400 Mesh.....80.0%



Sodium Bicarbonate U.S.P. Granular No. 5 for manufacture and compounding of effervescent salts, fruit soft drink tablets and other pharmaceuticals.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

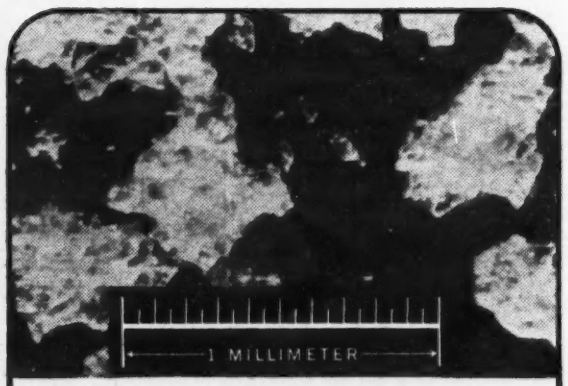
42 Mesh.....Trace	100 Mesh.....92.5%
65 Mesh.....27.0%	170 Mesh.....99.0%
80 Mesh.....66.5%	



Sodium Bicarbonate U.S.P. Granular No. 4 for use in pharmaceuticals, baking powders and cake mixes.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

80 Mesh.....Trace	200 Mesh.....91.0%
100 Mesh.....1.5%	325 Mesh.....96.5%
170 Mesh.....60.5%	



Sodium Bicarbonate U.S.P. Extra Coarse Granular No. 6 for use in formulating special pharmaceuticals.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

28 Mesh.....None	65 Mesh.....91.0%
48 Mesh.....13.0%	80 Mesh.....98.5%
48 Mesh.....33.0%	100 Mesh.....99.3%

Why jeopardize the shelf life or sparkling performance of your pharmaceutical products with an inappropriate granulation of sodium bicarbonate? To eliminate risks, specify Church & Dwight. You'll obtain the widest selection of grain sizes available because Church & Dwight is the country's largest supplier of Sodium Bicarbonate U.S.P. You'll also receive for the asking unmatched technical service based on more than 100 years of experience in the formulating of Sodium Bicarbonate. Unusual grain size requirements are given special attention. Try us and see. Write today for latest technical data sheets.

CHURCH & DWIGHT CO., INC., 70 PINE STREET, NEW YORK 5, N. Y.

Sodium sesquicarbonate, bgs., c.l., works	100 lbs.	2.35	—
bgs., l.c.l., dlvd. zone 1	100 lbs.	4.10	- 4.35
dlvd. zone 2	100 lbs.	4.35	- 4.60
dlvd. zone 3	100 lbs.	4.75	- 4.90
dlvd. zone 4	100 lbs.	5.35	- 5.60

Sales zones are (1) Atl. states E. of Miss., R and N of south bound of Ky. and Va., Ala., La., and Miss., south of 31°; Tex. E. of 100°; S. of 31° Fla.; also Me., N. H. and Vt. in which there are special county zones; Davenport, Ia., and St. Louis; (2) Ark. E. of 98° Ga.; Iowa (except Davenport) Minn., Mo. (except St. Louis) Neb. E. of 98° N. C., S. C., Tenn. and Tex. N. of 31° and E. of 100° (except Wichita Falls); also Ala., La. and Miss. No. of 31°; (3) Ark. W. of 96°, Kan., Neb. W. of 98° N. D., Okla., S. D., Tex., W. of 100° (including Wichita Falls, excluding El Paso); (4) Ariz., Colo., Idaho, Mont., Nev., N. M., Utah, Wyo. and El Paso, Tex.

Sodium sesquisilicate, anhyd., c.l., t.l., works	lbs.	5.70	—
dms., c.l., t.l., works	100 lbs.	6.20	—
Sodium sesquisilicate, hydrated, bgs., c.l., works	100 lbs.	5.00	—
bgs., 6,000-19,900 lb. lots, works	100 lbs.	5.35	—
dms., c.l., works	100 lbs.	5.50	—
dms., 6,000-19,900 lb. lots, works.	100 lbs.	5.85	—
Sodium silicate, liq., 40° Be., 1:3.2, turbid, dms., c.l., works.	100 lbs.	1.65	—
dms., l.c.l., works	100 lbs.	1.90	- 2.40
tanks, works	100 lbs.	1.20	—
47° Be., 1:2.9, turbid, dms., c.l., works	100 lbs.	2.25	—
dms., l.c.l., works	100 lbs.	2.60	- 3.45
tanks, works	100 lbs.	1.90	—
52° Be, 1:2.4, turbid, dms., c.l., works	100 lbs.	2.65	—
dms., l.c.l., works	100 lbs.	3.00	- 3.50
tanks, works	100 lbs.	2.30	—
Solid, 1:3.2, bgs., works	ton.	67.50	—
Sodium silicofluoride, bgs., c.l., works	lb.	.065	—
bgs., l.c.l., works	lb.	.725	—

Sodium silicofluoride in dms., 0.4c. per lb. higher.

Sodium stannate, dms., works, frt. alld. E	lb.	.633	- .692
Sodium sulfa drugs (see Sulfa name).			
Sodium sulfanilate, bbls., works	lb.	.22	—
Sodium sulfate, NF VII, dried, powd., dms	lb.	.22½	—
Tech., anhyd., bgs., c.l., dlvd. E.	ton.	54.00	—
Tech., detergent, rayon grade, bgs., c.l., works	ton.	36.00	—
bulk, c.l., works	ton.	32.00	—
USP, cryst., fib. dms.	lb.	.17½	- .18
Sodium sulfhydrate, flake, 70-72%, dms., c.l., works, frt. equald	lb.	.07¼	—
dms., l.c.l., same basis	lb.	.08¼	—
Liq., 40-44%, tanks, works, 100% basis	ton.	130.00	—
Sodium sulfide, flake, dms., c.l., works, E., frt. equald	lb.	.06	—
dms., l.c.l., same basis	lb.	.07	—
Fused, bbls., c.l., works, E., frt. equald	lb.	.05½	—
bbls., l.c.l., same basis	lb.	.06½	—
Sodium sulfite, anhyd., powd., bgs., c.l., works	100 lbs.	7.55	—
bgs., l.c.l., same basis	100 lbs.	7.95	—
Anhyd., tech., bgs., c.l., works,	100 lbs.	3.50	—
bgs., t.l., same basis	100 lbs.	4.00	—

Sodium sulfocyanide, CP (see Sodium thiocyanate).

Sodium tetraborate (see Borax).

Sodium tetrasulfide, liq., 40%, dms., c.l., works, frt. equald	lb.	.04½	—
dms., l.c.l., same basis	lb.	.05½	—
Sodium thiocyanate, CP, dms.	lb.	.55	- .65
Tech., anhyd., dms., 1 ton lots or more, works	lb.	.317	—
dms., less than ton lots, works	lb.	.337	—
Sodium thiosulfate, NF, cryst., bbls.	lb.	.13½	—
Tech., anhyd., 100-lb. bgs., c.l., t.l., frt. equald	100 lbs.	7.75	—
100-lb. bgs., l.c.l., l.t.l., frt. equald	100 lbs.	8.15	—
Sodium thiosulfate, tech., anhyd., photo grade, 64-lb. bgs., c.l., t.l., frt. equald	lb.	.0775	—
64-lb. bgs., l.c.l., l.t.l., frt. equald	lb.	.0815	—
Tech., pentahydrate, photo grade, 100-lb. bgs., c.l., t.l., frt. equald	100 lbs.	4.95	—
Sodium thiosulfate, tech., pentahydrate, photo grade, 100-lb. bgs., l.c.l., l.t.l., frt. equald	100 lbs.	5.20	—
Sodium titanate, ctns., c.l., works.	lb.	.14¼	—
ctns., 5-ton lots, works	lb.	.14½	—
ctns., 1-ton lots or less, works	lb.	.14¾	—
Sodium trichloroacetate, 90%, 100-lb. dms., c.l., frt. alld. E.	lb.	.35	—
50-lb. dms., c.l., frt. alld. E.	lb.	.35½	—
10-lb. cns., c.l., frt. alld. E.	lb.	.42	—

Prices on Sodium trichloroacetate W. of the Rockies are 1¾c. per pound higher.

Sodium tripolyphosphate, bgs., c.l., works, frt. equald	100 lbs.	8.16	—
bgs., l.c.l., same basis	100 lbs.	8.56	- 9.06
Sodium trisilicate, powd., 1:3.2, bgs., c.l., works	100 lbs.	8.95	—
bgs., l.c.l., works	100 lbs.	9.70	-13.13
dms., c.l., works	100 lbs.	9.45	—
dms., l.c.l., works	100 lbs.	10.20	-10.60
Sodium tungstate, tech., kgs., dlvd. E	lb.	1.32	—
Sodium-ammonium phosphate, purif., cryst., dms., works	lb.	.52	—
Sodium-carboxymethyl cellulose (see CMC).			
Sodium-cinchophen (see Cinchophen-sodium).			
Sodium - formaldehyde sulfoxylate, dms., c.l., dlvd.	lb.	.21	—
dms., l.c.l., same basis	lb.	.21½	—
Sodium-zirconyl sulfate, fib. dms., 1,000-lb. lots or more works	lb.	.28	—
fib. dms., smaller lots, same basis	lb.	.30	—
Solvent naphtha, coaltar, high-flash, tanks, frt. equald	gal.	.30	- .35½
Solvent naphtha, petroleum, straight aromatic, 310°-360°F. b.r., 14°-16°C. m.a.p., tankcars, New Jersey and New York	gal.	.31	—
Houston, Texas	gal.	.29	—
355°-420°F. b.r., 17°-18°C. m.a.p., tankcars, New Jersey and New York.	gal.	.32	—
Houston, Texas	gal.	.30	—
Solvent naphtha, petroleum, partial aromatic, 211°-265°F. b.r., 31°C. m.a.p., tankcars, New Jersey and New York	gal.	.235	—
286°-340°F. b.r., 22°C. m.a.p., tankcars, New Jersey and New York	gal.	.275	—
319°-380°F. b.r., 27°C. m.a.p., tankcars, New Jersey and New York	gal.	.285	—
322°-395°F. b.r., 28°C. m.a.p., tankcars, New Jersey and New York	gal.	.295	—
Sorbital, powd., dms., c.l., works	lb.	.36	—
dms., 1 to 5-ton lots, works.	lb.	.38	- .39
Soln., coml., aqueous, dms., c.l., works	lb.	.24¼	—
dms., ton lots, works	lb.	.25	—
dms., smaller lots, works	lb.	.25¼	—
tanks, works	lb.	.23¼	—
Sorbitan monostearate, fib. dms., 20,000-lb. lots, works	lb.	.33	—
fib. dms., 10,000 to 20,000-lb. lots, works	lb.	.35	—
fib. dms., smaller lots, works	lb.	.38	- .40
Sorbitan tristearate, fib. dms., 20,000-lb. lots, works	lb.	.34	—
fib. dms., 10,000 to 20,000-lb. lots, works	lb.	.36	—
fib. dms., smaller lots, works	lb.	.39	- .41
Sorbitol, NF, reg., 70% aqueous, dms., c.l., works	lb.	.18	—
dms., l.c.l., works	lb.	.19	—
tanks, works	lb.	.16¼	—
cryst., resin grade, pellets, dms., c.l., works	lb.	.23	—
dms., 1 to 5-ton lots, works.	lb.	.23	- .26
Soya protein, chemically isolated, old process, bgs., c.l., works.	lb.	.23	—
bgs., l.c.l., works	lb.	.23¼	- .23½
Chemically isolated, new process, bgs., c.l., works	lb.	.20	—
bgs., l.c.l., works	lb.	.20¼	- .29½
Soybean meal, 44%, bulk, unrestricted, Decatur	ton.	53.00	—
Soybean oil, crude, tanks, Decatur.	lb.	.08¾	—
Foots, soapstock, acid 95%, tanks, N. Y.	lb.	.05½	—
Refd., alkali, dms.	lb.	.1268	- .1285
tanks	lb.	.1068	—
Soybean oil, clarified, dms.	lb.	.1218	- .1235
tanks	lb.	.1018	—
salad, dms.	lb.	.1245	- .1275
tanks	lb.	.1045	—
Soybean oil acids, dbl. dist., dms.,	lb.	.17	- .19½
tanks	lb.	.14½	—
S. D., dms.	lb.	.15¾	- .18¼
tanks	lb.	.13¼	—
Sparteine sulfate, ens., 100 oz. or more	oz.	.80	—
Spearmint leaves, dom., bls.	lb.	.75	—
Spearmint oil, NF, dms.	lb.	9.00	-11.75
Sperm oil, bleached, winter, 45°, dms	lb.	.1475	- .1575
tanks	lb.	.1275	—
Nat., winter, 45°, dms	lb.	.1375	—
tanks	lb.	.1175	—
Spermaceti wax, blocks, cs.	lb.	.31	- .33
Cakes, cs.	lb.	.32	- .34
Spruce oil, ens., dms.	lb.	2.10	- 3.55
Squill, white, bls.	lb.	.16	- .18
Powd., bbls., bxs.	lb.	.17	- .20
St. John's bread, edible, bls.	lb.	.17	—
Stannic chloride, anhyd., dms., works	lb.	.803	- .825
Stannis oxide, dms., dlvd.	lb.	1.06	- 1.07
Stannous chloride, anhyd. dms., works	lb.	.993	- 1.250
Hydrous, cryst., dms., works	lb.	.86	- .87
Stannous sulfate, dms., works	lb.	1.05	- 1.07
Star root (see Helonias root).			
Stargrass root (see Aletris root.)			
Stavesacre seed, bgs.	lb.	.60	- .61
Stearic acid, dbl., pressed bgs.	lb.	.15¾	- .18¼
Single-pressed, bgs.,	lb.	.15¼	- .17¾
Triple-pressed, bgs.	lb.	.17½	- .20
Stearine, oleo (see Oleostearine.)			
Stoddard solvent, petroleum, tanks, east coast, New Jersey, New York	gal.	.18	—
tanks, Houston	gal.	.1475	—
tanks, group 3	gal.	.12875	—
Stramonium leaves, bgs.	lb.	.13	—
Streptomycin sulfate, bulk, gram.		.035	- .038
Strontium bromide, NF, cryst., 100-lb. dm., f.o.b. E	lb.	.92	—
Strontium carbonate, pure, dms., 5-ton lots or more, works.	lb.	.35	—
dms., 1-ton lots, works	lb.	.37	—
Tech., dms., works	lb.	.19	—
Strontium chromate, fib. dms., dlvd.	lb.	.48	—
Strontium iodide, jars, 25-lb. lots	lb.	3.57	—
Strontium nitrate, bgs., c.l., works.	100 lbs.	11.00	—
bgs., l.c.l., works	100 lbs.	12.00	—
Strontium salicylate, NF, dms.	lb.	1.88	—
Strontium sulfate, air floated, 90%, 325 mesh, bgs., works.	ton.	56.70	-66.15
Strophanthin G (see Quabain, USP).			
Strophanthin K, bots.	oz.	25.00	-35.00

How NOSEY, The Esso Solvents Expert, overcame a "pressing" matter with high-solvency LAKTANE®
STOP! STOP THE PRESSES! Caked ink on the cylinders, poor impressions, "fill-in", lost time, wasted money—no wonder, I'm run down and irritable.
Just sit here and relax a minute while I show you the answer to a press foreman's dream.
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What's that? You heard that ESSO has a staff of experts in its refineries continually striving to improve Esso Solvents? You heard that our service is unsurpassed and our terminals conveniently located? Well, you heard exactly right!
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Strophanthus Seed—Urea-Ammonia Liquor

Strophanthus seed, Kombi, biologically tested, bgs lb. 3.50 - 3.75
Styrax gum, USP, cs. lb. 4.50 - 5.50
Styrene monomer, polymer grade, 99.6%, dms., c.l., frt. alld. lb. .17 - —
dms., l.c.l., same basis lb. .19 - —
tanks, same basis lb. .14½- —
Tech., 99.2%, dms., c.l. lb. .1472- —
dms., l.c.l., same basis lb. .1672- —
tanks, bulk, same basis lb. .1222- —

Above prices are escalated for each calendar quarter on the basis of cost of crude oil at the well, cost of petroleum refining labor, and prices in the three major sections of the Wholesale Commodity Price Index.

Styrolyl acetate, bots. lb. 1.25 - 1.45
Succinic acid, purif., cryst., dms., t.l., frt. alld lb. .62 - —
dms., l.t.l., same basis lb. .63 - .75
Succinic anhydride, dms., c.l., t.l., dlvd lb. .51 - —
dms., l.c.l., same basis lb. .52 - —
Sucrose, refd., white, bgs., refy E. lb. .0920- —
Sucrose acetate, isobutyrate, 90%, dms., t.l., dlvd lb. .35½- —
dms., l.t.l., same basis lb. .35 - —
tanks, same basis lb. .31 - —
100%, t.l., dms., dlvd. lb. .35½- —
l.t.l., dms., same basis lb. .37 - —
Sucrose octa-acetate, denaturing grade, 100-200-lb. lots, bgs., l.c.l., works lb. 1.00 - —
Sugar (see Sucrose).
Sugar cane, wax, dom., refd., slabs, 80-lb. ctns., works lb. .60 - .65
80-lb. ctns., spot lb. .65 - .75
Sulfabenzamide, dms. kilo. 8.80 - 9.90
Sulfabenzamide-sodium, dms. kilo. 9.00 -10.10
Sulfacetamide, USP, fib. dms kilo. 6.61 - 6.83
Sulfacetamide-sodium, USP, fib. dms kilo. 8.15 - 9.25
Sulfadiazine, USP, microcrystals, dms kilo.23.35 -24.45
USP, powd., dms. kilo.22.60 -23.70
Sulfadiazine-sodium, USP, dms kilo.24.80 -25.90
Sulfaguanidine, NF X, dms kilo. 5.50 - 6.60
Sulfamerazine-sodium, USP, powd., dms kilo.24.80 25.90
Sulfamethazine, USP XV, microcrystals, dms kilo.19.65 -20.75
USP XV, powd., dms. kilo.18.75 -19.85
Sulfamic acid, cryst., dms., c.l., t.l., works 100 lbs.16.00 - —
dms., l.c.l., t.l., works 100 lbs.17.50 18.50
Gran., dms., c.l., t.l., works, 100 lbs.14.75 - —
dms., l.c.l., t.l., works 100 lbs.16.25 -17.25
Sulfanilamide, NF, reg., 1,000 lb., frt. equald lb. 1.50 - —
NF, fib. dm., frt. equald lb. 1.55 - —
Sulfanilamide quinoxaline, veterinary, dms kilo.16.28 - —
Sulfanilic acid, tech., dms., c.l., frt. alld lb. .21 - —
dms., l.c.l., frt. alld lb. .23 - —
Sulfapyridine, USP XV, powd., bots., tins kilo.15.45 -16.55
Sulfapyridine-sodium, monohydrate, dms kilo.16.35 -17.65
Sulfathiazole, NF X, microcrystals, dms kilo. 6.25 - 6.90
NF X, powd., dms. kilo. 5.50 - 6.15
Sulfathiazole-sodium, NF X, dms., 1,000-lb. lots or more lb. 2.35 - —
Sulfur, comi., flour, bgs., mines, 100 lbs. 2.35 - —
bbls., mines 100 lbs. 3.30 - —
lump, bgs., mines 100 lbs. 2.25 - —
bbls., mines 100 lbs. 2.80 - —
Crude, dom., bright, bulk, f.o.b. cars, mines, long-ton 23.50 - —
Crude, export, f.o.b. vessels, Gulf ports, long-ton 25.00 - —
US and Canada, f.o.b. vessels Gulf ports long-ton 25.00 - —

Domestic dark sulfur prices are $1 per long-ton lower.

Sulfur, crude, imp., Mexican, bulk, filtered, f.o.b., vessel, Coatzacoalcos long-ton 24.00 - —

Mexican dark sulfur price is $1 per long-ton lower.

Sulfur, refd., flowers, NF, bgs., mines 100 lbs. 5.65 - —
bbls., mines 100 lbs. 7.00 - —
flour, light, bgs., mines 100 lbs. 5.25 - —
bbls., mines 100 lbs. 6.25 - —
lump, bgs., mines 100 lbs. 4.95 - —
rolls, bgs., mines 100 lbs. 5.50 - —
bbls., mines 100 lbs. 6.25 - —
salt block, bgs., mines 100 lbs. 4.65 - —
virgin block, bbls., mines 100 lbs. 4.70 - —
Sulfur, rubbermakers, comi., reg., bgs., mines 100 lbs. 2.45 - —
bbls., mines 100 lbs. 3.70 - —
98-100%, passing through 325 mesh, bgs., mines 100 lbs. 2.55 - —
bbls., mines 100 lbs. 3.80 - —
refd., bgs., mines 100 lbs. 4.90 - —
bbls., mines 100 lbs. 6.05 - —
treated, 2.5% mineral oil, bgs., mines 100 lbs. 2.75 - —
bbls., mines 100 lbs. 4.00 - —
Sulfur dichloride, ret. dms., c.l., works, frt. equald lb. .05¼- —
ret. dms., l.c.l., same basis lb. .06¼- —
tanks, same basis lb. .04½- —
Sulfur dioxide, liq., comi., cyls., works, frt. equald lb. .10 - .12
multi-unit cars, works lb. .0535- —
tanks, works lb. .045 - —
Sulfur dioxide, refrigeration, cyls., dlvd lb. .23 - —
Sulfur monochloride, 55-gal. non-ret. dms., c.l., frt. equald lb. .05¼- —
dms., l.c.l., same basis lb. .06¼- —
tanks, same basis lb. .04½- —
Sulfuric acid, 60° Be, cbys., c.l., works 100 lbs. 2.00 - —
cbys., l.c.l., works 100 lbs. 2.30 - —
tanks, works ton.18.60 - —
66° Be, cbys., c.l., works 100 lbs. 2.25 - —
cbys., l.c.l., works 100 lbs. 2.55 - 3.35
tanks, works ton.22.35 - —
98%, tanks, works ton.23.50 - —
99%, tanks, works ton.23.70 - —
100%, tanks, works ton.23.95 - —
CP, NF, consumers' cbys., c.l., frt. equald lb. .12¾- —
Sulfuric acid, CP, NF, consumers', cbys., l.c.l., same basis, lb. .14¼- .14¾
5-pt. bots., extra, cs., c.l., works, frt. alld lb. .16¼- —
5-pt. bots., extra, cs., l.c.l., same basis lb. .17¾- .18¾
Sulfuric acid, fuming (oleum), 20%, tanks, works ton.25.00 - —
40%, tanks, works ton.29.00 - —
65%, tanks works ton.39.50 - —
Superphosphate, run-of-pile under 22% a.p.a., pulv., bulk, c.l., Baltimore unit-ton. .90 - .93
bulk, c.l., Carteret, N. J. unit-ton. .90 - .93
bulk, f.o.b. vessel at Fla. unit-ton. 1.03 - —
Superphosphate, triple, 48% or more a.p.a., pulv., bulk, c.l., East Tampa, Fla unit-ton. .98 - —
Sweet birch oil, USP, northern, cns lb. 4.00 - 9.50
USP, southern, cns lb. 2.00 - 3.05

T

2,4,5-T, dms., c.l., works, frt. equald. lb. 1.18 - —
dms., l.c.l., same basis lb. 1.25 - —
2,4,5-T, isopropyl ester, dms., c.l., works, frt. equald lb. 1.24 - —
dms., l.c.l., works lb. 1.29 - —
Talc, dom., fibrous, grd., bgs., c.l., works, New York ton.23.00 - —
bgs., l.c.l., works ton.31.00 -36.00
fibrous, 99.5%, 325 mesh, bgs., c.l., works, New York ton.31.00 - —
bgs., l.c.l., works ton.34.00 - —
fibrous, 99.95%, 400 mesh, micronized, bgs., c.l., works, ton.38.00 - —
625 mesh, micronized, bgs., c.l., works ton.80.00 - —
ord., Calif., grd., bgs., c.l., works ton.34.00 -39.50
Vermont, off-color, grd., bgs., c.l., works ton.19.40 - —
bgs., l.c.l., works ton.37.00 - —
Imp., Canadian, grd., bgs., c.l., mines ton.20.00 -35.00
Tall oil, crude, dms., c.l., works lb. .04½- .04¾
tanks, works lb. .02¾- .03
Dist., depending on grade, dms., c.l., works lb. .07¾- .10
dms., l.c.l., works lb. .08 - .10¼
tanks, works lb. .05¾- .08
Refd., depending upon grade, dms., c.l., works lb. .07¼- .09¼
dms., l.c.l., works lb. .07½- .09¾
tanks, works lb. .05¼- .07¼
Tall oil acids, dms., c.l., works lb. .07 - .10
dms., l.c.l. lb. .07½- .10½
tanks, works lb. .05 - .08
Tallow, edible, tanks, dlvd lb. .08¾- .08½
Inedible, fancy, bleachable, tanks, lb. .06 - —
fancy, guaranteed, bulk, f.o.b. steamer lb. .06½- —
dms., f.a.s. lb. .07½- —
tanks, dlvd. lb. .06¾- —
No. 1, tanks, dlvd lb. .05½- .05⅛
prime, tanks, dlvd. lb. .05⅜- —
special tanks, dlvd. lb. .05¾- —
Sulfonated, 25%, bbls., l.c.l lb. .09½- .09¾
50%, bbls., l.c.l. lb. .10¼- .11
Tallow acids, dist., dms. lb. .13¼- .15¾
tanks lb. .10¾- —
Hydrogenated, dms. lb. .14¾- .17¼
Tallow oil, acidless, dms., c.l. lb. .13½- Nom.
dms., l.c.l. lb. .14½- .16
Tangerine oil, Florida, dms lb. 4.25 - 4.75
Tankage, animal, feeding, 9-11% ammonia, New York bulk, unit-ton. 5.25 - 5.75
Tannic acid, NF, fluffy, bbls., 1,000-lb. lots lb. 2.05 - —
bbls., smaller lots lb. 2.06 - 2.07
NF, powd., bbls., 1,000-lb. lots lb. 1.95 - —
bbls., smaller lots lb. 1.96 - 1.99
Tech., dms. lb. 1.05 - —
Tansy oil, dms lb. 6.60 - 8.00
Tar acid oil, 15-18%, dms., c.l., frt. equald gal. .53½- —
dms., l.c.l., same basis gal. .55½- —
tanks, same basis gal. .43½- —
Tar acid oil, 25-28%, dms., c.l., same basis gal. .60 - —
dms., l.c.l., same basis gal. .62 - —
tanks, same basis gal. .50 - —
50-53%, dms., c.l., same basis gal. .75 - —
dms., l.c.l., same basis gal. .77 - —
tanks, same basis gal. .65 - —
Tar, coal (see Coaltar).
Tartar emetic (see Antimony potassium tartrate).
Tartaric acid, NF, 100-lb. bgs., c.l., frt. equald lb. .41 - —
bgs., 10,000 lbs., 1 shipt., same basis lb. .43 - —
bgs., smaller lots, same basis lb. .47 - —
Terpine hydrate, NF, cryst., powd., 100-lb. fib. dms lb. .70 - —
Terpineol, extra, dms lb. .50 - .60
Prime, dms. lb. .40 - .50
Terpinyl acetate, extra, cns., dms. lb. .64 - .75
Prime, dms. lb. .53 - .56
Terpinyl propionate, dms. lb. 1.75 - 3.00
Terra alba (see Gypsum).
Testosterone, USP, bots. gram. No prices.
Testosterone propionate, USP, bots. gram. No prices.
Tetrachloroethane, dms., works lb. 14½- —
Tetrasodium pyrophosphate (see Sodium pyrophosphate).
Tetrachloroethylene, tech. (see Perchloroethylene).
Tetrachloroethylene, USP, 55-gal. dms., c.l., t.l., works lb. .20½- —
dms., l.c.l., works lb. .22 - .23½
Tetraethyl orthosilicate, dms., c.l., dlvd. E lb. .60 - —
dms., l.c.l., dlvd. E lb. .61½- —
Tetraethyl pyrophosphate, 40%, cns., dms., frt. equald lb. .75 - —
Tetraethylenepentamine, dms., c.l., dlvd. E lb. .53½- —
dms., l.c.l., dlvd. E lb. .55 - —
tanks, dlvd. E lb. .51 - —
Tetraethylthiuram disulfide, tech., dms., frt. alld lb. 1.04 - —
Tetrahydrofuran, dms., c.l., t.l., works lb. .36½- —
dms., l.c.l., or l.t.l., works lb. .37 - —
tanks, works lb. .35 - —
Tetrahydrofurfuryl alcohol, dms., c.l., t.l., Memphis, Tenn. lb. .31½- —
dms., l.c.l., Memphis, Tenn lb. .32½- —
dms., c.l., t.l., Newark, N.J. lb. .33½- —
dms., l.c.l., Newark, N.J lb. .34½- —
tanks, dlvd. E. of Denver lb. .31 - —
tanks, dlvd. W. of Denver lb. .32 - —
Tetrahydrophthalic anhydride, dms., c.l., t.l., frt. alld. E lb. .39 - —
l.c.l., l.t.l., same basis lb. .41 - —
Tetrapotassium phosphate (see potassium phosphate).
Thallium metal, dlvd lb. 7.50 -10.00
Thallium sulfate, 99%, bots., dlvd. lb. 5.00 -10.00
Theobromine, NF, fib. dms., 100-lbs., f.o.b., works lb. 4.40 - 4.75
Theobromine and sodium acetate, USP, fib. dms., 500-lbs. works lb. 6.45 - —
Theobromine, sodio-salicylate, NF, fib. dms., 500-lbs., works. lb. 3.80 - —
Theophyline, USP, anhyd., 100-lb. dms., frt. alld lb. 3.65 - —
Thiamine hydrochloride, USP, fib. dms., frt. alld kilo.36.00 - —
USP, ampule grade, fib., dms., frt. alld kilo.38.00 - —
Thiamine mononitrate, USP, fib. dms., frt. alld kilo.36.00 - —
Thiocarbanilide, dms., ton lots lb. .72 - —
dms., less ton lots lb. .74 - —
Thiodiphenylamine (see Phenothiazine).
Thioflavin green toner, brilliant, molybdated, PMA, kgs., works lb. 5.20 - —
Tungstated, PTMA, kgs., works lb. 6.20 - —
Thioglycolic acid, refd., 55 gal. dms., ton lots, 100% basis lb. 1.15 - —
Thiosalicylic acid, 80%, dms., 1,000-lb., lots, works lb. 4.00 - —
Thiourea, tech., bgs., t.l., frt. alld. lb. .30 - —
bgs., ton lots, same basis lb. .32 - —
bgs., less than ton lots, same basis lb. .33 - —
Thorium nitrate, purif., fib. dms., 100-lb. lots or more, works lb. 3.50 - —
di-Threonine, bots., 1-kilo lots kilo.275.00 - —
Thyme leaves, French bgs lb .29 - —
Spanish, bgs. lb. .11 - —
Thyme leaves, bgs. lb. .29 - —
Spanish, bgs. lb. .11 - —
Thyme oil, NF, red, cns., dms lb. 1.90 - 2.25
NF, white, cns. lb. 2.20 - 2.60
Tech., white, cns. lb. .40 - 1.85
Thymol, fib. dms., 25-lbs., f.o.b. works lb. 3.06 - —
Thymol iodide, NF, dms., 100-lbs. f.o.b. works lb. 7.40 - —
Timbo root (see Cube root).
Tin chloride (see Stannous chloride, anhyd.).
Tin crystals (see Stannous chloride, hydrous).
Tin metal (Straits) lb. 1.00 - —
Tin oxide (see Stannic oxide).
Tin sulfate (see Stannous sulfate).
Tin tetrachloride, anhyd. (see Stannic chloride, anhyd.).
Titanium dioxide, anatase, ceramic, bgs., c.l., dlvd lb. .25½- —
bgs., l.c.l., dlvd. lb. .26½- —
reg., bgs., c.l., dlvd. lb. .25½- —
bgs., l.c.l., dlvd. lb. .26½- —
metallurgical, nat., bgs., c.l., f.o.b. Jacksonville, Fla.ton.180.00 - —
bgs., 5-ton lots, Niagara Falls, N. Y ton.205.00 - —
bgs., ton lots, same basis, ton.215.00 - —

Milled metallurgical titanium dioxide $7.50 per ton higher.

Titanium dioxide, rutile, nonchalking, bgs., c.l., dlvd. E lb. .27½- —
bgs., l.c.l., dlvd. E lb. .28½- —
Titanium dioxide-calcium pigment, 30% Ti O_2, reg., bgs., c.l., dlvd lb. .09¾- —
bgs., l.c.l., works lb. .09⅞- —
50% Ti O_2, high-tinting, dms., c.l., lb. .14⅜- —
dms., l.c.l. lb. .14⅝- —
Titanium hydride, powd., dms., works lb. 8.10 - 9.00
Titanium tetrachloride, tech., dms., c.l., works lb. .26 - —
dms., l.c.l., works lb. .27½- .29
tanks, works lb. .20 - —
Tobias acid, dms., c.l., t.l. lb. .78 - —
dms., l.c.l. lb. .81 - —
d-a-Tocopherols, NF, mixer, conc., pure basis, bots kilo.67.00 - —
d-a-Tocopheryl acetate; NF, conc., pure basis, bots kilo.122.00 - —
d-a-Tocopheryl acid succinate, cryst., bots kilo.109.00 - —
di-a-Tocopherol, bots. kilo.99.00 - —
di-a-Tocopheryl acetate, bots kilo.90.00 - —
25% dry, powd., bots kilo.22.50 -24.00
33⅓ dry, powd., bots. kilo.30.00 -31.50
o-Tolidine base, dry, kgs., 100% basis lb. 1.55 - —
Paste, kgs., 100% basis lb. 1.50 - —

TOLUOL

Toluol quotations, both coaltar and petroleum, may be found under Toluene.

o-Tolidine, hydrochloride paste, kgs., 100% basis lb. 1.50 - —
Tolu balsam, cns. lb. 3.00 - 3.25
Toluene, coaltar, indust., or nitration, tanks, dlvd. E. of Rockies gal. .25 - —
Toluene, petroleum, indust., tanks, dlvd. E. of Rockies gal. .25 - —
p-Toluenesulfonamide, powd., dms., t.l., works lb. .60 - —
dms., l.t.l., same basis lb. .63 - —
Toluenesulfonic acid, 55-gal. dms., t.l., frt. alld lb. .16 - —
1,000-lb. or more, same basis lb. .18 - —
less than 1,000-lb., same basis lb. .23 - —
tanks, same basis lb. .14 - —
Toluenesulfonic acid in 10-gal. dms., 2c. per lb. more.
p-Toluenesulfonic acid monohydrate, dms., c.l., or t.l. lb. .90 - —
dms., 125 lbs. to t.l. lb. 1.00 - —
m-Toluidine, dms., c.l., works, frt. alld lb. .83 - —
dms., l.c.l., same basis lb. .84 - —
tanks, same basis lb. .82 - —
o-Toluidine, dms., c.l., works, frt. alld lb. .30 - —
dms., l.c.l., same basis lb. .31 - —
tanks, same basis lb. .28 - —
p-Toluidine, tech., flake, dms., frt. alld lb. .50 - —
Cast, dms., frt. alld lb. .45 - —
p-Toluidine-m-sulfonic acid, dms., works lb. .92 - 1.04
Toluidine red toner, deep shades, kgs., works lb. 1.70 - —
Light shades, kgs, works lb. 1.70 - —
2,4-Tolylenediamine, cryst., fib. dms., l.c.l., frt. alld lb. 1.10 - —
Tonka beans, Angostura, cks. lb. 1.50 - —
Brazilian, Surinam, cs. lb. 1.30 - —
Totaquine, 100-oz. lots, cns. oz. .42 - —
Toxaphene, dms., c.l., t.l., works, lb. .22 - —
dms., l.c.l., l.t.l., works lb. .23 - —
Tragacanth gum, No. 1, ribbons, cs lb. 3.85 - 3.90
No. 2, cs. lb. 3.40 - 3.60
No. 3, cs. lb. 3.15 - 3.25
USP, powd., bbls. lb. 1.05 - 1.15
Triacetin dms., c.l., dlvd. E. of Rockies lb. .29 - —
dms., l.c.l., same basis lb. .40 - —
tanks, same basis lb. .37 - —
Triallylamine, dms., c.l., dlvd lb. .985 - —
dms., l.c.l., dlvd. lb. .995 - —
tanks, dlvd. lb. .96 - —
Tributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .42½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .43½- —
tanks, frt. alld. E. of Denver lb. .40 - —
Tributyl phosphate, dms., c.l., works, lb. .52½- —
dms, l.c.l., same basis lb. .53½- —
tanks, same basis lb. .50 - —
Tributylamine dms., c.l., works lb. .67½- —
dms., l.c.l., same basis lb. .69 - —
tanks, same basis lb. .65 - —
Tributyrin, dms., l.c.l., dlvd. lb. .69 - —
Trichloroacetic acid, bots lb. 2.00 - 2.50
Trichlorobenzene, dms., c.l., frt. alld. E. lb. .15 - —
dms., l.c.l., frt. alld. E. lb. .16 - —
tanks, frt. alld. E. lb. .13¼- —

Trichlorobenzene prices in the West 1¼c. higher.

1,1,1-Trichloroethane, dms., c.l., dlvd. lb. .13¼- —
dms, l.c.l., dlvd. lb. .16¼- —
tanks, dlvd. lb. .12¼- —
1,1,2-Trichloroethane, dms., c.l., works lb. .13½- —
dms., l.c.l., dlvd. E lb. .14¼- —
tanks, works lb. .11½- —
Trichloroethylene, dms., c.l., or t.l., dlvd lb. .14 - —
dms., l.c.l., dlvd. lb. .15¼- —
tanks, dlvd. lb. .12¾- —
Trichloroisocyanuric acid, dms., c.l., t.l., frt. equald lb. .65 - —
dms., l.c.l., same basis lb. .75 - —
Trichlorophenoxyacetic acid (see 2,4,5-T).
Tricholine citrate, 65% soln., ret. cbys., works, frt. adjusted. lb. 1.40 - 1.45
Tricresyl phosphate, coaltar, dms., c.l., dlvd lb. .35 - —
dms., l.c.l., dlvd. lb. .36 - —
tanks, dlvd. lb. .32½- —
Tricresyl phosphate, petroleum, dms., c.l., dlvd lb. .34½- —
dms., l.c.l., dlvd lb. .35½- —
tanks, dlvd. lb. .32½- —
Tridecyl alcohol, mixed isomers, dms., c.l., dlvd. E lb. .26½- —
dms., l.c.l., dlvd. E lb. .28 - —
tanks, dlvd. E lb. .24 - —
Triethanolamine, dms., c.l., dlvd. E. lb. .24½- —
dms., l.c.l., same basis lb. .26 - —
tanks, same basis lb. .22 - —
Triethanolamine lauryl sulfate, dms., c.l., t.l., frt. alld lb. .25½- —
dms., l.t.l., frt. alld. lb. .26½- —
tanks, frt. alld. lb. .24½- —
Triethylamine, dms., c.l., dlvd. E. lb. .50 - —
dms., l.c.l., same basis lb. .51½- —
tanks, same basis lb. .47½- —
Triethyl nitrate, refd., tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .46¼- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .47¼- —
tanks, frt. alld. E. of Denver. lb. .43¾- —
Triethyl phosphate, dms., c.l., dlvd. lb. .40½- —
dms., l.c.l., dlvd. lb. .41½- —
tanks, dlvd. lb. .38 - —
Triethylene glycol, dms., c.l., dlvd. E lb. .21 - —
dms., l.c.l., dlvd. E lb. .22½- —
tanks, same basis lb. .18½- —
Triethylenetetramine, dms., c.l., dlvd. E lb. .51½- —
dms., l.c.l., dlvd. E lb. .53 - —
tanks, dlvd. E lb. .49 - —
Triisobutylene, tanks, dlvd. lb. .08 - —
Tri-isopropanolamine, dms., c.l., dlvd. E lb. .23¼- —
dms., l.c.l., dlvd. E lb. .24¾- —
tanks, dlvd. E lb. .20¾- —
Trimethylamine, anhyd., cyls., l.c.l., frt. equald, 100% basis lb. .30 - .305
tanks, frt. equald, 100% basis, lb. .26 - —
25-40% soln., dms., c.l., frt. equald, 100% basis lb. .35 - —
dms., l.c.l., frt. equald, 100% basis lb. .35½- —
tanks, 100% basis, frt. equald lb. .26 - —
Trimethylolpropane, dms., c.l., t.l., dlvd. E lb. .35 - —
dms., l.c.l., l.t.l., same basis lb. .36 - —
Trioxanes, pure, dms., c.l., t.l., works lb. .50 - —
dms., l.c.l., works lb. .51½- —
Tripentaerythritol, bgs., c.l., t.l., dlvd. E lb. .40 - —
bgs., l.c.l., l.t.l., dlvd. E lb. .41 - —
Triphenyl phosphate, bbls., c.l., frt. equald lb. .41½- —
bbls., l.c.l., frt. equald lb. .43½- —
Triphenylguanidine, bbls., works lb. .90 - —
Tripropylene, dms., c.l., dlvd. E. gal. .44 - —
dms., l.c.l., same basis gal. .54 - —
tanks, same basis gal. .28 - —
Tripropylene glycol, dms., c.l., t.l., frt. alld. E lb. .20½- —
dms., l.c.l., l.t.l., frt. alld. E lb. .22 - —
tankcars and compartmented tankcars, frt. alld. E lb. .17½- —
tankwagon and compartmented tankwagons, 1,000 gals. min., frt. alld. E lb. .18 - —

Tripropylene glycol prices 1c. per lb. higher in west.

Trisodium phosphate (see Sodium phosphate tribasic).
dl-Tryptophane, fib., dms., works lb.55.00 - —
Tung oil, dms., c.l., New York lb. .24¼- —
dms., l.c.l., New York lb. .24½- —
tanks, imported, N. Y. lb. .22¼- —
tanks, domestic mills lb. .22 - —
Tungsten metal, powd., 2.0-2.5 microns, dms., works lb. 4.25 - —
Tungstic acid, tech., dms., 1,000-lb. lots, works lb. 2.25 - —
dms., smaller lots, works lb. 2.45 - —
Turkey red, bbls., works lb. .62 - —
Turpentine, gum (see Protective Coatings market, Naval Stores).
Turpentine oil, NF, cns., dms lb. .28 - .50
Tuscan red, bbls., frt. equald lb. .26 - .32
Tyrothricin, USP, 1 to 5 kilos gram. .54 - —

U

Ultramarine blue, cobalt type, dry or pulp, 250-lb. bbls., dlvd. E. of Rockies lb. .35 - .39¼
Jobbing types, bbls., same basis lb. .19 - —
Regular types, dry bbls., same basis lb. .22½- .35

Ultramarine blue prices 1c. higher W. of Rockies.

Umber pigment, burnt, American, bgs., c.l., works lb. .07½- .07¾
bgs., l.c.l., works lb. .07¾- .08
Burnt, turkey-type, bgs., c.l., Boston, Bethlehem, Easton, Pa., Hiwassee, Va., N. Y. lb. .08¼- —
Raw, American, bgs., works lb. .07¾- .08¼
Turkey-type, bgs., works lb. .08¼- .08¾
Undecylenic acid, dms. lb. 1.28 - —
Unicorn root, false (see Helonias root).
Unicorn root, true (see Aletris root).
Urea, 46% N, indust., bgs., c.l., t.l., dlvd. E ton.125.00 - —
bgs., l.c.l., dlvd. E. ex whse. ton.145.00 - —
45% N, agricultural, bgs., c.l., (30 tons) dlvd. E ton.103.00 - —
Urea-ammonia liquor A, B, C & F grades, N basis, tanks, frt. equald ton.120.00 - —
37 grade, tanks, same basis ton.145.00 - —

Urethane, USP, dms., t.l., f.o.b. works lb. .65 - —
dms., l.t.l., same basis lb. .70 - —
Uva-ursi leaves, bls lb. .12 - —

V

Valerian root, Belgian bgs. lb. .32 - —
Indian, bgs. lb. .25 - —
dl-Valine, dms., works lb. 21.00 -27.50
Vanadium pentoxide, tech., dms., works lb. 1.28 - 1.33
Vandyke brown, bbls., works lb. .09½- .12
Vanilla beans, Bourbon, tins lb. 13.25 -13.50
Mexican cuts, tins lb. 13.25 -13.50
whole, tins lb. 13.50 -13.75
Vanillin ex lignin, 100-lb. fib. dms., 1,000-lb. lots or more lb. 3.00 - —
100-lb. fib. dms., 500-lb. lots lb. 3.10 - —
100-lb. fib. dms., cns. 100-lb. lots lb. 3.25 - 3.35
Venetian red, jobbing, bgs., works lb. .0475- —
Venetian red, 20%, bgs., works lb. .0525- —
25%, bgs., works lb. .0575- —
30%, bgs., works lb. .06 - —
35%, bgs., works lb. .0625- —
40%, bgs., works lb. .0675- —
Vetiver oil, Bourbon, cns. lb. 17.25 -17.50
Haitian, cns. lb. 14.50 -15.50
Victoria blue toner, molybdated, PMA 250-lb. bbls., dlvd. E. of Rockies lb. 4.50 - 4.95
Tungstated, PTMA, 250-lb. bbls., dlvd. E. of Rockies lb. 5.55 - —
Victoria blue toner, bbls., prices 1c. higher W. of Rockies.
Vinyl acetate monomer, zone 1, 55-gal. dms., c.l., dlvd lb. .20 - —
55-gal. dms., l.c.l., dlvd. lb. .21½- —
tanks, dlvd. lb. .17½- —
tanktrucks less than 4,000 gal., dlvd lb. .18 - —
Zone 2, 55-gal. dms., c.l., dlvd lb. .21 - —
55-gal. dms., l.c.l., dlvd. lb. .24 - —
tanks, dlvd. lb. .18½- —
tanktrucks, less than 4,000 gals., dlvd lb. .19 - —
Zone 1 is all continental US except zone 2, zone 2 comprises Ariz., Calif., Idaho, Mont., Nev., Ore., Utah and Wash.
Vinyl n-butyl ether, tech., dms., l.c.l., works lb. .50 - —
Vinyl chloride monomer, tanks, works lb. .125 - —
Vinyl ether USP, anethesia, bots., 50cc., hospitals bot. 1.12 - —
bots., 75cc., hospitals bot. 1.56 - —
Vinyl ethyl ether tech. dms., c.l., works lb. .29¼- —
dms., l.c.l., works lb. .30 - —
tanks, works lb. .27¼- —
Vinyl propionate monomer, dms., c.l., dlvd lb. .49 - —
dms., l.c.l., same basis lb. .50 - —
tanks, same basis lb. .47 - —
Vinyl trichloride (see Trichloroethane).
2-Vinylpyridine, 10 dms. to tanks, works lb. 1.20 - —
1 to 9 dms., works lb. 1.35 - —
tanks, works lb. 1.15 - —
Vinyltoluene, dms., c.l., f.o.b., works, lb. .16½- —
dms., l.c.l., same basis lb. .18½- —
tanks, f.o.b. dest. frt. prepaid lb. .14 - —
Viosterol in nat. vegetable oil, 1,000,000 D units per gram, bots., lots of 10 billion USP units 1,000,000 units. .02½- —
Virginia type red, bbls., works lb. 1.40 - —
Vitiamin A acetate, syn., cryst., beads, 500,000 A units per gram gram .67¼- —
Vitamin A acetate, dry, 500,000 units per gram, kilo lots kilo. 65.00 - —
325,000 units per gram, same basis kilo. 43.88 - —
250,000 units per gram, same basis kilo. 33.75 - —
Dry vitamin A acetate in less than kilo lots, $1.25 to $2.50 per kilo higher.
Vitamin A, liq. in oil, 1,000,000 A units per gram 1,000,000 units. .09½- —
Vitamin A palmitate, liq., 1,000,000-1,300,000 A units per gram 1,000,000 units. .09½- —
Vitamin B_1 (see Thiamine hydrochloride).
Vitamin B_2 (see Riboflavin and Yeast).
Vitamin B_{12}, cryst., USP (cyanocobalamin), 1-50 grams, vials, tins gram. 120.00 - —
0.1% vitamin B_{12}, USP, adsorbed on gelatin, 100 and 500-gram bots on 1-5 kilo dms gram. 1.43 - —
0.1% vitamin B_{12}, USP adsorbed on resin, 100 and 500-gram bots., 1-5 kilo dms gram. 1.43 - —
Vitamin B_{12}, oral grade solids in containers of 1 and 10 gram of B_{12} activity gram. 110.00 - —
0.1% trituration of cryst., B_{12} with dicalcium phosphate or mannitol, 1-10 kilo. 136.00 - —
Vitamin B_{12}, 0.1% cobalamin concentrate, NF, adsorbed on resin, 500-gram bots., 1-5 kilo, dms., frt. alld gram. 1.15 - —
0.1% cobalamin concentrate in gelatin, 1-10 kilo. dms., frt. alld gram. 1.15 - —
Vitamin C (see Ascorbic acid).
Vitamin D (see Codliver and Fishliver oils, Calciferol and Viosterol).
Vitamin D, dry, 850,000 units per gram, kilo lots kilo. 42.50 - —
850,000 units per gram less than kilo lots kilo. 43.00 - —
Vitamin E (see a-Tocopherol and Wheat germ oil).
Vitamin H (see Biotin).
Vitamin K, active (see Menadione).
Violet methyl toner (see Methyl violet toner).
VM&P naphtha (see Naphtha, VM&P, petroleum).

W

Wahoo root bark, bls. lb. 2.00 - 2.25
Warfarin, 0.5%, dms., 50-lb. lots, dlvd lb. 1.95 - —
dms., 25-49-lb. lots, New York or Chicago lb. 2.05 - —
dms., 5-24-lb. lots, New York or Chicago lb. 2.13 - —
Watchung-type reds., bbls. lb. 1.95 - —

WAXES
Wax quotations are listed individually. For example, prices on Wax, carnauba, may be found in the C's under Carnauba wax.

Wheat germ oil, 5-gal. dms. gal. 12.25 - —
White lead (see Lead, white).
White mineral oil (see Mineral oil, white).
White pine bark, rossed, bls. lb. .21 - .21
White precipitate, USP, powd., dms., 100 lbs., f.o.b. works lb. 5.50 - —
Whiting (see Calcium carbonate).
Wild cherry bark, thin, nat., bls. lb. .22 - —
Thin, rossed, bls. lb. .22 Nom.
Wintergreen oil, USP nat. northern, cns. lb. 6.35 -17.50
USP, nat. southern cns lb. 3.75 - 7.00
Wintergreen oil, syn. (see Methyl salicylate).
Witch hazel bark, bls lb. .16 - .17
Witch hazel leaves, bls. lb. .28 - .30
Wollastonite fine bgs., c.l., works, ton. 39.50 - —
bgs., l.c.l. ex whse ton. 56.00 - —
Medium, bgs., c.l., works ton. 27.00 - —
bgs., l.c.l., ex whse. ton. 44.00 - —
Wood alcohol (see Methanol).
Wood oil (see Tung oil).
Woolfat crude (see Degras).
Woolfat USP (see Lanolin).
Wormseed Levant bgs. lb. 2.50 - —
Wormseed oil (see Chenopodium oil NF).
Wormwood oil, cns lb. 4.73 - 5.00

X

Xylene coaltar, indust., tanks, works: Bethlehem, Pa. gal. .29 - —
Birmingham dist. gal. .28 - —
Chicago dist. gal. .28½- —
Cleveland dist. gal. .29 - —
Geneva, Utah gal. .29 - —
Johnstown, Pa. gal. .29 - —
Lackawanna, N. Y gal. .29½- —
Lone Star, Tex. gal. .27 - —
Lorain, Ohio gal. .29 - —
Middletown, Ohio gal. .30 - —
Minnequa, Col. gal. .29 - —
Philadelphia dist. gal. .29 - —
Pittsburgh dist. gal. .29 - —
Sparrows Point, Md. gal. .29 - —
Terre Haute, Ind. gal. .29 - —
Youngstown, Ohio gal. .29 - —
Xylene, petroleum, indust., tanks f.o.b. works: Bayonne, N. J gal. .29 - —
Baytown, Tex. gal. .27 - —
Charleston, S. C. gal. .29 - —
Chicago, Ill gal. .23½- —
Detroit, Mich., dlvd gal. .27½- .29
Houston, Tex. gal. .27 - —
Philadelphia, Pa. gal. .29 - —
Providence, R. I. gal. .30 - —
Sewell's Point, Va. gal. .28 - —
Wood River, Ill. gal. .28½- —
m-Xylene, 95%, dms., c.l., frt. alld. lb. .25 - —
dms., l.c.l., frt. alld. lb. .26 - —
tanks, frt. alld. lb. .23 - —
o-Xylene, dms., c.l., works lb. .08 - —
dms., l.c.l., works lb. .09 - —
tanks, works lb. .06 - .06½
p-Xylene, dms., c.l., works lb. .20 - —
dms., l.c.l., works lb. .21 - —
tanks, frt. alld. lb. .1645- —
Xylenol, cryst., 43°-47°C., m.p., dms., l.c.l., works lb. .23 - —
56°-58°C., m.p., dms., l.c.l., works, frt. equald lb. .33 - —
Xylenol, cryst., 60°-62°C., m.p., dms., l.c.l., same basis. lb. .40 - —
Xylenol fraction, b.r. 7°-9° C., dry above 227° C., dms., c.l., same basis gal. 1.25 - —
dms., l.c.l., same basis gal. 1.30 - —
tanks, same basis gal. 1.05 - —
b.r. 7°-9° C., dry at or below 227° C., dms., c.l., same basis. gal. 1.35 - —
Xylenol fraction, b.r. 7°-9° C., dry at or below 227° C., dms., l.c.l., same basis gal. 1.40 - —
2,4-Xylidine, tech., dms., frt. alld. lb. 1.15 - —
2,5-Xyliline, tech., dms., frt. alld. lb. 1.20 - —
Xylidines, mixed, o-m-p, dms., c.l., or t.l., works lb. .29 - —
dms., l.c.l., same basis lb. .40 - —
tanks, same basis lb. .33 - —

XYLOL
Xylol quotations, both coaltar and petroleum, may be found under Xylene.

Y

Yara yara oil, cns. lb. 2.15 - 3.05
Yeast, brewers, debittered, USP, Saccharomyces, dlvd lb. .27 - —
dry, USP, 50 Int'l B units per gram, 100-lb. dms lb. .47 - —
USP, 90 Int'l B units per gram, 100-lb. dms lb. .52 - —
USP, 200 Int'l B units per gram, 100-lb. dms lb. .56 - —
Yeast, brewers, debittered, USP, 300 Int'l B units per gram, 100-lb. dms lb. .60 - —
Torula, USP, dlvd. lb. .18 - —

YELLOW PIGMENTS
Yellow pigment quotations are listed individually. For example, prices on Yellow, benzidine, may be found in the B's under Benzidine yellow.

Yerba santa leaves, bls. lb. .40 - .45
Ylang-ylang oil, Bourbon, bots lb. 7.00 -22.00
extra, bots. lb. 24.00 -33.00
extra, bots. lb. 24.00 -33.00
Yohimbine hydrochloride, bots., tins. oz. 3.75 - 4.25

Z

Zein, bgs., 36,000-lb. lots or more, bgs., 500-lb. lots or more, dlvd lb. .343 - —
bgs., smaller lots, dlvd lb. .373 - —
Zinc acetate, NF, VIII, dms lb. .33 - —
Tech., dms., l.t.l., works lb. .29¾- —
Zinc borate, bgs., 1,000 lbs or more, works lb. .25 - —
bgs., less than 1,000 lbs., same basis lb. .27 - —
Zinc chloride, NF, gran., dms lb. .42 - —
NF, precip., powd., dms lb. .26 - —
Tech., soln., 50%, dms., c.l., works, 100 lbs. 5.80 - —
dms., l.c.l., works, 100 lbs. 6.40 - —
tanks, works 100 lbs. 5.15 - —
fused, dms., c.l., works, 100 lbs. 10.70 - —
dms., l.c.l., works, 100 lbs. 11.20 - —
gran., fib. dms., c.l., works, 100 lbs. 11.45 - —
fib. dms., l.c.l., works, 100 lbs. 11.95 - —
Zinc chromate bbls., dlvd. lb. .29 - —
Basic bbls., dlvd. lb. .34 - —
Zinc cyanide dms. 1,000-lb. lots or more, works lb. .55 - —
dms., smaller lots, works lb. .57 - —
Zinc dust coml. bbls., c.l., works, lb. .17 - —
Pigment, bbls., c.l., works lb. .16½- —
bbls., l.c.l., works lb. .18¼- —
Zinc fluoride, bbls., works lb. .49 - .50
Zinc hydrosulfite, dms., c.l., frt. alld lb. .21½- —
dms., l.c.l., frt. alld. lb. .23½- —

Zinc metal prime western, slabs, E. St. Louis lb .13 - —
Prime western slabs, New York, lb. .13½- —
Zinc naphthenate liq. 8% Zn., dms., frt. alld lb. .27 - —
10% Zn., dms., frt. alld. lb. .33 - —
Zinc nitrate tech. cryst., bbls., works lb. .20 - —
Zinc oxide, pigment, American process, lead-free bgs., c.l., frt. alld lb .14½- —
bgs., l.c.l., 10 tons or more, same basis lb. .15 - —
bgs., l.c.l., smaller lots, same basis lb. .15½- —
leaded, 35% bgs, c.l., mills, frt. alld lb. .13¾- —
bgs., l.c.l., 10 tons or more, same basis lb. .15⅝- —
leaded 50% bgs., c.l., same basis lb. .15¾- —
bgs., l.c.l., 10 tons or more, same basis lb. .16¼- —
USP, gran., dms. lb. .26 - —
French process, green seal, bgs., c.l., mills, frt alld lb. .16¼- —
bgs., l.c.l., 10 tons or more, same basis lb. .16¾- —
bgs., l.c.l, smaller lots, same basis lb. .17¼- —
red seal, bgs., c.l., same basis, lb. .15¾- —
bgs., l.c.l., 10 tons or more, same basis lb. .16¼- —
bgs., l.c.l, smaller lots, same basis lb. .16¾- —
white seal, bgs., c.l., same basis lb .16¾- —
bgs., l.c.l., 10 tons or more, same basis lb .17¼- —
bgs., l.c.l., smaller lots, same basis lb .17¾- —
Zinc oxide, USP dms., c.l., frt. alld. lb. .18¼- —
dms., l.c.l., 10 tons or more, same basis lb .18¾- —
dms., l.c.l., smaller lots, same basis lb. .19¼- —
Zinc phenolsulfonate, NF, gran., dms lb. .45 - .46
NF, powd., dms. lb. .48 - .49
Zinc resinate, precip, 7.2-7.6% Zn., dms., frt. alld lb. .40¼- —
Zinc silicofluoride, dms., works lb. .12½- .14
Zinc stearate, tech., USP, cns., c.l. lb. .41 - —
cns., l.c.l. lb. .42 - .46

Zinc sulfate, powd., monohydrate, 36% Zn, bgs., c.l., dlvd E. 100 lbs. 8.75 - —
bgs., l.c.l., dlvd. E. 100 lbs. 9.75 - —
Zinc sulfate in bbls 40c. higher.
Zinc sulfide, pure, bgs., c.l., dlvd lb. .2530- —
Zinc undecylenate, dms. lb. 2.00 - —
Zinc, yellow (see Zinc chromate).
Zinc-ammonium chloride, bgs., c.l., works 100 lbs. 10.25 - —
bbls., c.l., works 100 lbs. 10.85 - —
bbls., l.c.l., works 100 lbs. 11.35 - —
Zinc formaldehyde sulfoxylate, basic, 300-lb. dms., frt. alld lb. .26 - —
Normal, 250-lb. dms., frt. alld lb. .52 - —
Zircon (G) gran., bgs., c.l., works, lb. .03½- —
bgs., 5 tons to c.l., works lb. .03⅝- —
bgs., 1 ton to 9,999-lb. lots, works lb. .04 - —
bgs., smaller lots, works lb. .06½- —
Zircon (G), milled, bgs., c.l., works, lb. .04½- —
bgs., 5 tons to c.l., works lb. .04⅝- —
bgs., 1 ton to 9,999-lb. lots, works lb. .04⅝- —
bgs., 500-1,999-lb. lots, works lb. .07½- —
Zircon (G) in barrels 1c. higher.
Zirconium acetate soln., 13% ZrO_2, dms., c.l., 30,000 lbs. min., works lb. .23 - —
Zirconium hydride, powd., electronic grade, dms., works lb. 14.00 -15.00
Zirconium oxide, CP, white, grd., bbls. or bgs., works lb. 1.50 - —
Electric-fused lump, bgs., 500 to 1,999-lb. lots, works lb. .48½- —
bgs., smaller lots, works lb. .51 - —
milled, bgs., c.l., works lb. .62 - —
bgs., 5-ton lots, works lb. .62½- —
bgs., 1-ton to 9,999-lb. lots, works lb. .63½- —
bgs., 500 to 1,999-lb. lots, works lb. .64 - —
bgs., smaller lots, works lb. .66 - —
Glass polishing grade, 94-97% ZrO_2, bgs., works lb. .55 - .65
Opacifier grade, 85-90% ZrO_2, bgs., lb. .27 - .58
Stabilized oxide, 91% ZrO_2, milled, bgs lb. .62 - .85
Zirconium oxychloride, cryst., cns., 5-ton lots, works lb. .37½- —
bgs., l.c.l., smaller lots, same basis lb. .16⅜- —

East German Chemical Expansion Plan Pushed

—*Continued from page 7*

as it will affect individual chemicals, with 1958 figures shown for comparison:

Chemical Production*

	1955	1931	1958
Sulfuric Anhydride	1,005	712	531
Soda Ash	730	636	552.9
Caustic Soda	440	332	296.4
Calcium Carbide	1,180	1,013	831
Phenol, Pure	50.2	17.2	16.7
Methanol	153	88	64
Acetic Acid	63	57	43
Caprolactam	23.9	9.3	7.6
Gasoline	4,200	2,670	2,030
Ammonia (N)	425	....	365.3
Nitrogenous Fertilizers	386	342	320
Phosphatic Fertilizers	284	153	136
Potash Fertilizers	2,128	1,600	1,528
Paints, Varnishes, Lacquers	266.3	169	....
Synthetic Fibers	38.9	12.7	6.7

* Thousands of tons.

In building up its petrochemical industry, East Germany has no intention of deemphasizing cokeoven operations. But, as elsewhere in Europe, the petroleum arm will gain more proportionally. This is thought to be particularly necessary in that country because of the supply difficulties it has encountered through its carbide-coal raw materials base.

Polyvinyl chloride output will continue to be based on carbide and acetylene gas, but the country plans to allot an increasing share of petroleum to production of organic intermediates. In 1959, the proportion of petroleum as against coal for these materials stood at 38 percent.

By 1965, the most important aromatics —such as benzene, toluene and xylene— which heretofore have been imported, will be produced in sufficient quantity from petroleum to meet domestic needs.

Meanwhile, crude oil imports from Soviet Russia will have risen from 1.4 million tons to 5 million tons, 4 million of them coming by way of a new pipeline from the Urals to the heart of East Germany's chemical industry.

Ethylene, as raw material for polyethylene, looms large in the country's petrochemical prospects. Though plans are not firm, the regime has been weighing construction of a benzene cracker with a capacity in the neighborhood of 100,000 tons of ethylene yearly.

Production of aromatics in 1965 is expected to total 56,000 tons of benzene, 25,000 tons of phenol, 16,000 tons of propylene and 31,000 ton of xylene—all from petroleum.

This will make possible a big boost in synthetic resin output, which for the past ten years has been developing comparatively slowly—when measured against East German chemicals generally or against comparable West German growth.

The quick build-up of the synthetic resin industry has now been made one of the most important goals in the country's chemical plan. It will develop as follows:

Synthetic Resins Output

	1965	1931	1960	1958
	(*Thousands of Tons*)			
All Resins	311	153	..	93
Polyvinyl Chloride	126	86.0	60	54.5
Polystyrene	20	11.1	..	3.7
Phenolics	35	*25	16	..
Melamines	50	*40	32	..
Polyvinyl Acetate	12	*10	6	..
Polyethylene High- and Low-Pressure)	50	*30	1	..
Polyesters (Unsaturated	5	*4	..	..
Polyamides	6	*4	1.6	..
Synthetic Rubber	105	91	—	64

* 1963

FDA Lengthens Its List

—*Continued from page 3*

was exempted last January (OPD, 1/25/60). Interested persons are asked by agency to submit their comments on the new list within thirty days. The new items are:

SPICES AND OTHER NATURAL SEASONINGS AND FLAVORINGS

Alfalfa herb and seed, ambrette seed, angelica, angelica root, angelica seed, angostura (cusparia bark).

Balm (lemon balm), chamomile (cammomile), English or Roman chamomile, German or Hungarian (camomile), chervil, clover.

Elder flowers, galanga (Galangal), geranium, horehound, Hyssop, linden flowers, sage (Greek), thyme, wild or creeping.

ESSENTIAL OILS, OLEORESINS (SOLVENT-FREE) AND NATURAL EXTRACTIVES (INCLUDING DISTILLATES)

Alfalfa, ambergris, ambrette seed, balm (lemon balm), bergamot (bergamot orange), cacao, carrot, castoreum, chervil, chicory, clover, corn silk, curacao orange peel (orange, bitter, peel).

Dandelion, dandelion root, dog grass (quackgrass, triticum), elder flowers, estragon (tarragon), galanga (Galangal), geranium, glycyrrhizin (ammoniated), hickory bark, horsemint, hyssop.

Imortelle, laurel berry, lemon balm (see balm), lemon peel, linden flowers, lupulin, malt (extract), melissa (see balm), menthol, menthyl acetate, molasses (extract).

Orange (sweet flowers), orange (sweet, peel), rose buds, rose flowers, rose fruit (hips), rose leaves, Sage, Greek, savory, summer, savory, winter, sloe, berries (blackthorn berries).

Tamarind, tannic acid, thyme (wild or creeping), triticum (see dog grass), violet flowers, violet leaves.

NATURAL SUBSTANCES USED IN CONJUNCTION WITH SPICES AND OTHER NATURAL SEASONINGS AND FLAVORINGS

Algae (brown, kelp), algae (red), dulse.

NATURAL EXTRACTIVES (SOLVENT-FREE) USED IN CONJUNCTION WITH SPICES, SEASONINGS AND FLAVORINGS

Algae (brown), algae (red), apricot kernel (persic oil), dulse, kelp (see algae, brown), peach kernel (persic oil), peanut stearine, persic oil (see apricot kernel and peach kernel), quince seed.

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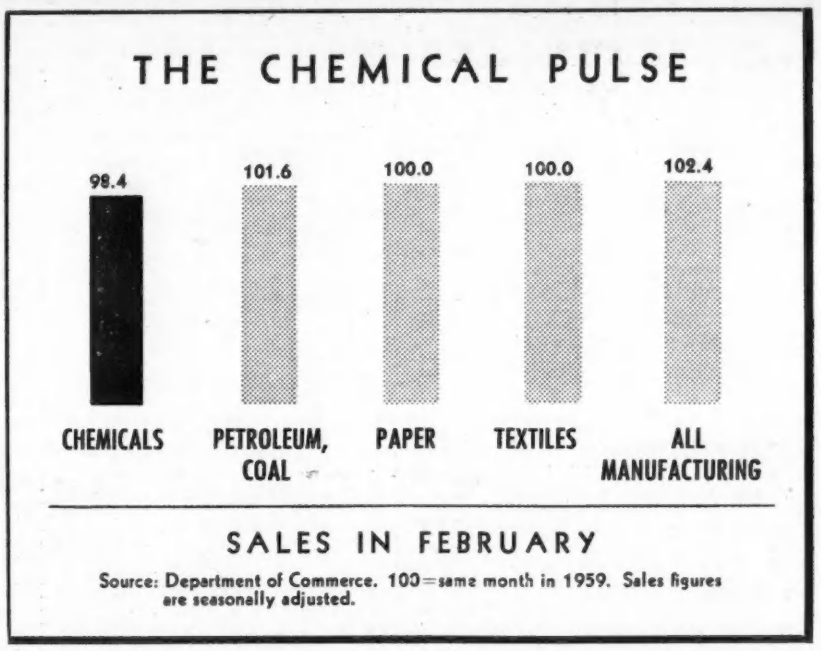

Leroi de Caisse: 1884-1960

Leroi de Caisse, who retired in 1953 after thirty-five years as an OPD market editor, died May 15 at his home in Asheville, N. C. He was seventy-five years of age.

Mr. de Caisse—or "the Duke" as he was familiarly called by his colleagues—joined OPD in October, 1917, and during his long career with the publication became expert in all phases of its market coverage.

He was best known to the trade, however, as a vast storehouse of knowledge on essential oils, drugs and fine chemicals and botanical drugs.

Long the "slot man" on OPD's copy desk, Mr. de Caisse maintained a ceaseless vigil against typographical errors and grammatical mistakes. To the printing force, he rated the supreme accolade: "a desk man with a good eye."

In his last years with the paper, he specialized in coverage of botanical drugs. Mr. de Caisse wrote OPD's annual report on botanical crop collections, a practice he continued for several years after his retirement from active service.

Before joining OPD, he was associated with Havas, the French news agency; the Associated Press, as a member of its Shanghai office; The New York *World;* the Chicago *Tribune,* and the Los Angeles *Times.*

Safety in Food Additives

Because man does not have infinite wisdom, he will err. It is his humanitarian responsibility to do everything possible to avoid errors of action or judgment which will present hazards for his fellow men in safety or welfare. It is for that reason that there is a serious message for caution on the part of all who are or should be in any manner officially, commercially or individually concerned with the public welfare, in the words of the Secretary of Health, Education & Welfare quoted on page 67 last week: "So long as the outstanding experts in the National Cancer Institute and the Food & Drug Administration tell us that they do not know how to establish with any assurance at all a safe dose in man's food for a cancer-producing substance, the principle in the anti-cancer clause is sound."

Whether Secretary Flemming had seen the report of the President's committee of scientists before he appeared at the congressional committee's hearing on the food additives bill is immaterial, even though they look along similar lines in various respects. The report was presented to the President May 14.

The conclusion of the scientific group was that the "increasing number of new chemicals potentially useful in agriculture and food production demand vigilant and careful scrutiny of the compounds offered in order to safeguard the consumer from those that may present carcinogenic and other toxic hazards." But, it was guided by the "rule of reason" and declared that "improved administrative procedures and further research are needed to guard against unnecessary banning of chemicals and drugs used in foods."

Under that belief, it recommended that a special board of experts from the Food & Drug Administration, the National Cancer Institute, and the Department of Agriculture, and others nominated by the National Academy of Sciences, should be appointed by the HEW department to help in evaluating scientific evidence on the basis of which the Food & Drug Administration decides whether use of additives may be permitted.

There is a lesson for all who are for any reason interested in any manner in the evaluation of the Delaney clause in the declaration by the scientific committee that the "definition of a carcinogen in the law is such that discretion is needed in interpretation because of many variables entering into a decision as to whether a particular substance is or is not carcinogenic."

Call it allergy or what you will, there is some reason why nobody can foretell who will or who will not be afflicted with cancer as a consequence of smoking cigarettes or being exposed to some quantity or other of a somehow potentially carcinogenic substance, whether as a chemical in a food or a color in a cosmetic. Preclusive legislating will err—from some point of view. It should err in the direction of public safety.

Problems in Petroleum

One of the big questions in overall economics in this country for some time has had to do with what should be the national policy on imports of crude petroleum and its products. Such importing is a pretty big business, even in comparison with the magnitude of the wholly domestic operations. In respect of the crude oil, it is a substantial contribution to volume and value of refining operations in this country. Drawing a line of demarcation for reduction is a difficult puzzle when reduced to terms of its eventual effect upon the national economy, especially at the consumer level.

Perhaps the most impressive argument for unrestricted importation of crude oil is that the natural resources of this country should be retained—perhaps nationalized—because they are essential to national security in terms of existence as well as defense. Such a program has been given little study; there is no sufficiently potential basis from which a satisfactorily adequate study can be launched. There is no guide toward how even a program, let alone a project, of nationalization should be or could be constructed. Because exploration will go on and on, buying up existing sources of production would not accomplish very much.

The problem has been compounded in several respects by the reported "request" by the government of India that the two American and one British companies operating oil refineries in that country give serious consideration to the using in greater or less part of the crude oil which the Soviet Union desires to sell to India at prices well below those of world markets in general.

As the US-owned refineries in India now operate with crude oil from their fields in the Middle East, they are faced with a double problem: Either they must meet the price of the Soviet crude, or they must find other markets for their crude. Because the Soviets are offering refined products as well as crude oil in many foreign markets at cut prices, the US companies have little if any choice other than to transfer the refining of their Middle East crude to their plants in this country. It is quite doubtful that they could do that under the existing import quotas or any expectable change therein.

Cuba Regulates Medicines

Among the numerous proclamations and procedures by the "government" of Cuba directed toward the disruption, if not destruction, of relations with the United States, is a decree, to become effective August 20, which will require that all pharmaceutical, biological and organotherapeutic products intended for sale to the public must be packed or repacked in Cuba. Cuban customs authorities will not permit clearance of products affected by the decree except upon presentation of a special permit issued by the commerce ministry.

Because of the continuous "Hate the Yankees" campaigning in Cuba—and what lies behind it—it would be logical to assume that US producers of products affected by the packaging decree will have to establish their own packaging facilities in Cuba if they wish to export the products to that country.

Under a resolution issued by the commerce ministry, distribution is prohibited of advertising samples of products coming under the above-mentioned decree whose weight or capacity is greater than 50 percent of the smallest-size container authorized for resale. Advertising samples must be specially labeled as such, and pharmacies are forbidden to keep such samples on their premises. Products supplied without cost or exclusively to charitable and similar institutions also must be specially labeled for such identification, and their sale to the public is prohibited.

It would seem that it would not be enough for US producers of products affected by the foregoing regulations to set up activities in Cuba—if they could get permission to do so and any assurance against governmental hijacking. They are faced very seriously with the necessity of deciding that the best thing to do is to get out of the Cuban market and stay out.

Washington Talks It Over

Fertilizer Industry Now Being Given Its Big Chance to Show Up Well Before the Whole World With a Contribution Toward Beating Back Tension-Creating Hunger Everywhere.

By Ralph L. Cherry
Washington Editor

On the theory that nobody likes to fight on a full stomach, the fertilizer industry has the opportunity to play a most important role in a world-wide cooperative effort of nibbling away at conditions which create tensions now so near the breaking point as a result of the Summit meeting fiasco.

The Food & Agricultural Organization of the United Nations wants a contribution of $2 million from the fertilizer producers around the globe to spend during the next two years in a world-wide educational program on the values of fertilizers in food production. FAO has labeled the program the "Freedom-from-Hunger Campaign."

The idea developed out of a meeting, late last month, of forty-one representatives of the fertilizer industry from different parts of the world. The domestic industry was represented at the meeting.

In a summarizing report, the objectives of the program are outlined as follows:

- To promote the efficient use of fertilizers in order to increase food supplies in deficit areas and feed supplies for animal production.
- To help governments develop national programs of fertilizer use and production.
- To assist selecting methods of spreading information on fertilizer needs and use.
- To develop guidelines regarding fertilizers in foreign aid.

Work in the field, described in the report as the most important part of the program, includes fertilizer tests on cultivators' fields and extensive demonstrations of fertilizers. It will also develop soil testing laboratories and services, for use as a guide to better fertilizer and management practices.

One more aim is needed: When fertilizer value has been shown, private industry should be asked to come in to build and operate the plants, or supply the fertilizer. But this should not be a government project.

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Heavy Chemicals

An advance, reported a week ago, was endorsed by other major producers of potassium chloride. The industrial grade will be raised $2 a ton on July 1, restoring prices to the $29-a-ton bulk level prevailing in 1956. The move follows on the heels of higher quotations for agricultural grades. Other highlights last week were the darkening production pace of steel, which happily has not been reflected by industrial production generally, steel's extravagant gyrations no longer or at least not now coloring other industries with the note of excess; and a statement by a nylon maker that rayon is in for a beating during the next four or five years, which, if it turns out to be true, would not pass unfelt by caustic soda producers.

A bird's eye view of sulfuric acid pricing across the country sees the keystone chemical steady at shaded levels on the East Coast, steady at list elsewhere. Nor has sulfur pricing changed. Alum is still $4 below list in the North Jersey area where a new plant by a new producer inspired others to hone the price knife in anticipation of a market scramble. Output from the new unit, momentarily expected, is not yet on the market, sources in the trade report.

In a steady groove, pricewise and otherwise, are lead, mercury, silver, zinc.

The American Paper and Pulp Association reported production for the week ended May 14, at 97.1 percent of theoretical capacity as compared with the revised figure of 97.3 percent for the previous week and 97.6 percent for the corresponding week of last year.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last Month	May 22, 1959
106.83	106.83	106.87	104.84

For Current Prices see Page 10

Acids

Hydrochloric—How badly acid producers have been hit by steel's downturn depends to a great extent on what part of the country they operate in. The steel production rate varies from a wretched 45 percent at Youngstown, Ohio to a booming 95 percent at Detroit where the automakers call a pleasant tune. In the East Coast, output is running close to 75 percent of capacity, and in the west no better than 70 percent. The figures are from American Iron & Steel Institute.

Hydrofluoric—Revised downward has been the aluminum industry's mouth-opening anticipation of a ten percent jump in production and sales this year, but the light metal makers remain optimistic, anticipating something like a five percent gain; and well they might, trade sources concur, with production running at peak levels for the first four months of the year and sales doing no worse than holding their own and sometimes better.

As a result, HF, a major raw material in aluminum fabrication, continues to do rather nicely.

Nitric—A little pinch as been felt from the steel downturn. Otherwise the market for nitric is undisturbed.

Sulfuric—Pricing of this keystone acid has undergone no change whatsoever over the past few months, according to a light canvassing of trade sources. This means that fair-sized discounts under levels quoted in OPD remain available on the east coast while material moves at quoted levels elsewhere.

OPD's east coast quotations are left as is to reflect producers' idea that the situation in that area is competitive and that the lower prices are quoted only under pressure of this competition as it arises.

Speaking of trouble spots, steel output was expected to fall to 2,042,000 tons, or 71.7 percent of capacity last week, as estimated by American Iron & Steel Institute. This compares with an actual total of 2,012,000 tons or 73.8 percent of capacity for the previous week.

Digging into its records, the Institute notes that output a month earlier was at 2,238,000 tons, and its archives show production at 2,644,000 tons a year ago.

Bases and Salts

Caustic Soda—A high-ranking source in the fiber raw materials field predicts that rayon consumption will drop some 400 million pounds between now and 1965. His prediction is based largely on the view that rayon will lose the tire cord market entirely to nylon during the years 1962-64.

Pronounced last fortnight, the opinion, being a not very disinterested one, roused no alarms in the rayon camp, where preparations are quietly under way for a long and costly struggle.

Grimly honing the price axe are stout yeomen of the camp, not because they would initiate a cut, but because the enemy has been known to do so and there is no reason to think he has abandoned that tack.

Should the Fates opt for nylon and the prediction come true, caustic makers would too lose 400 million pounds of business. For, as is well known, rayon and caustic output are laced together in a pound-for-pound pattern.

Lime—Output soared to 1,067,715 short tons in March, up from 981,898 the previous month, reports Mines Bureau.

The total included 847,061 tons of quicklime and 220,654 of hydrated. By uses, Mines notes, output broke down to 11,082 tons of agricultural, 73,132 tons of construction material, 755,207 for chemicals, and 228,294 tons of refractory grade lime (dead-burned dolomite).

Potassium Chloride—Major producers will advance the refined grade of this material (industrial muriate of potash) $2 a ton on July 1. This will restore the bulk price to its 1956 level of $29 a ton, one producer notes. Last week in this space the wrong price was given owing to a typographical error.

Sulfur — The following figures, compiled by the Bureau of Mines, show production and shipments of sulfur during specified periods:

	Mar.	Feb.
Native production	436,530	366,357
Shipments	468,186	377,626
Sales*	437,566	400,727
Stocks†	3,810,348	3,811,384
Recovered production	62,285	57,546
Shipments	66,819	60,981
Sales*	70,738	59,940
Stocks†	123,013	131,466

* Calculated from production and change in stocks during the period.
† Producers' stocks at mines or plants in transit, and in warehouse at end of period.

The following figures, compiled by the Bureau of Mines, show imports of Canadian and Mexican sulfur into the United States during specified periods in long tons.

	Feb.	Jan.
Ore	6,919	2,395
In any form	45,992	85,170
Total	52,911	87,565
Dollar Value		
Ore	$155,667	$55,595
In any form	971,428	1,754,487
Total	$1,127,095	$1,810,082

Nonferrous Metals

Copper—A sharp rise in US refined output highlights the Copper Institute's April report.

Production here totaled 153,053 tons as against only 131,308 the previous month. Crude primary output, the Institute notes, was slightly lower at 104,010 tons as against 107,514, while secondary output gained substantially, totaling 14,840 tons, as compared with 9,166 in March.

Refined production outside the US (and excluding Soviet Bloc countries) totaled 173,583 tons, up from 172,195 the month before, with primary crude output down to 197,198 tons from 199,550, and secondary production down to 2,076 from 3,032 tons.

Combined totals for the US and others (again excluding the Soviets) showed refined production up to 326,591 tons from 303,503 in March, crude primary down to 301,198 from 307,064 tons, and secondary output up to 16,916 tons from 12,198.

Mercury — Prices held unchanged against fair buying interest at a range of

Heavy Chemicals

$212 to $214 a flask, large lots, prompt shipment.

US output of mercury declined in 1959 for the first time since 1950, with production lower in every major producing state except Alaska, reports the Mines Bureau.

Total output of 31,000 flask was 18 percent below that of 1958 and the lowest since 1956, according to Mines.

But consumption rose four percent, the agency adds, exceeding 52,000 flasks for the fifth consecutive year. General imports totaled 30,000 flasks, a decline of only two percent from the 1958 level.

Price through the year averaged $227.48 a flask as against $229.06 in 1958. Monthly average quotations, Mines reports, ranged from a low of $214.09 a flask in December to a high of $245 in May.

World production of mercury also reversed the upward trend of the past ten years and dropped 8 percent, the agency notes. Decreases of 27 percent in Mexico, 22 in Italy, 18 in the US and 14 in Spain were responsible for the decline.

Silver—Price still unchanged at 91⅜c. a troy ounce, spot.

Tin—Metal gained a cent, closing at $1 a pound, spot, Friday.

Dow Slates Service Lab For Magnesium Die Casters

Dow Chemical Company will build a customer service laboratory at its Midland, Mich., headquarters for service to the automotive industry and other die casters.

The $400,000 unit, Dow says, will be equipped to demonstrate the latest techniques for melting and casting of magnesium. It is expected to be in full operation by November 1.

Dow believes this to be the first such laboratory in the non-ferrous metals field.

Goodrich's Plastic

—*Continued from page 4*

cost and light-weight, it scores what Goodrich considers a crucial competitive advantage. With commercial introduction sometime next year, Goodrich anticipates prices equal to or slightly lower than those of comparable copper materials, and the company points out that further price reductions usually follow a new plastic's market debut.

The home plumbing market is characterized as a multi-million-dollar segment of the $20 billion dollar home construction field, but Goodrich discloses no concrete figures.

Describing it as "the first significant breakthrough in this industry since development of the rigid vinyls twelve years ago," a spokesman for Goodrich affirms that researching and perfecting "Hi-Temp Geon," involved a multi-million dollar investment.

But the Cleveland, Ohio, chemical raw materials maker elects not to pinpoint the tab.

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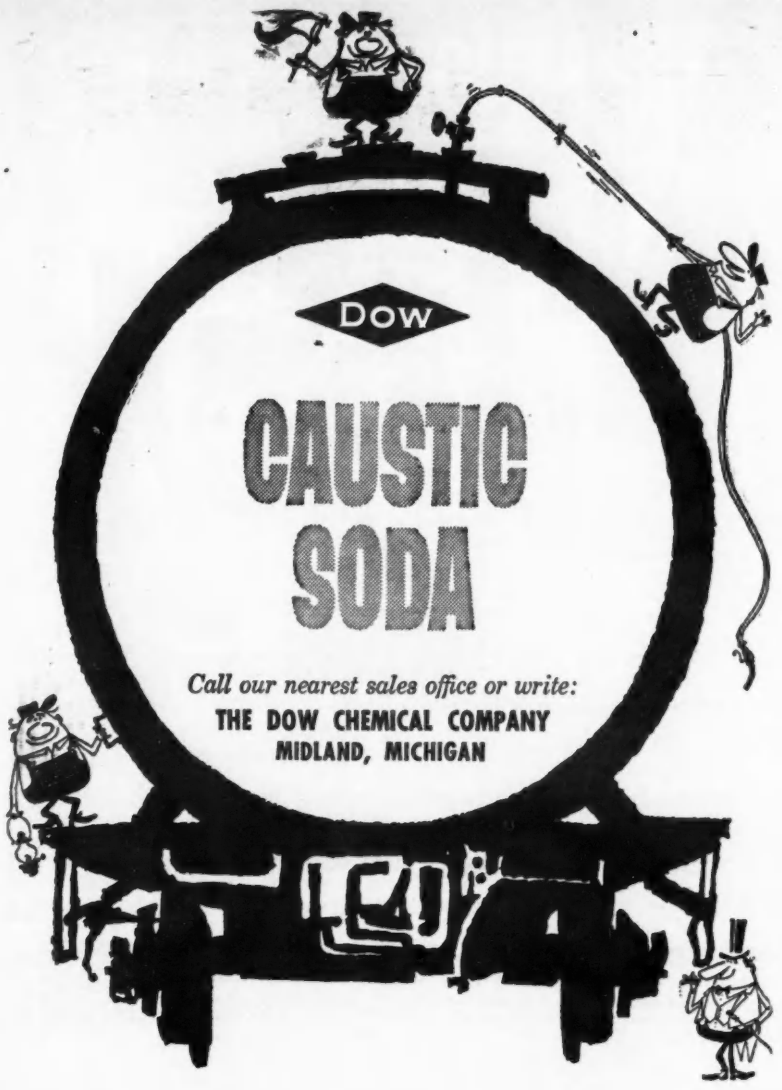

Chemicals Lured by Building

—Continued from page 5

materials takes a very back seat and yet most of the chemical engineers and chemists that are coming out of our schools today will be working in the field of polymers in one way or another."

W. J. Levitt, jr., of Levitt & Sons, Inc., went right on with the theme. The use of plastics for mechanical components, for decoration, and for structural cores is coming to bear directly on out-of-pocket housing costs, he noted.

"Their proper use will receive a tremendous shot in the arm if and when the manufacturer of basic materials institute programs designed to utilize their most important market research arm—the mass builders of America.

"If this is not done, they may fall into the fatal trap of the aluminum producers —i.e., trying to create a false market, rather than find and develop the best-suited uses for basic products.

A key undercurrent which connected the messages of several speakers at the meeting: the need for drastic and sweeping revisions of building codes.

"Many local codes," Miss Kahane pointed out, "forbid the use of vinyl floor covering in bathrooms. A building inspector will admit, however unofficially, of course, that this restriction is ridiculous."

Acceptance of New Materials Slow

Leonard C. Haeger, chairman of the research committee of the Building Research Institute, lamented that against the heavy flavor of traditional use and empirical engineering, new materials had rough going in trying to get accepted.

Burnham Kelly, associate professor of city planning of Massachusetts Institute of Technology, also hammered away at reactionary building codes as being obstructive to needs for new and simplified housing.

William H. Scheick, vice-president for research of Timber Engineering Company, told the meeting that the chemical industry's approach to the various parts of the building industry must be more direct and more personal.

Howard K. Nason, vice-president and general manager of the research and engineering division of Monsanto Chemical Company, told the meeting that technology is making available the resources for unprecedented inovation, and for the compression of time and of human labor.

"The response of any chemical enterprise must, if it is to succeed, be to innovate more selectively, to introduce more expeditiously, to produce more efficiently, and to operate intelligently and effectively in full knowledge of the nature of the world today, and of the requirements for survival in it," he said.

At the same meeting, CMRA elected its new slate of officers. J. William Everson, of Dow Chemical Company, became president, and F. Scott Godron, of Victor Chemical Works, division of Stauffer Chemical Company, was named president-elect.

Ray Harrison, jr., of Tidewater Oil Company, was elected treasurer, and Kevin Bradley, of White, Weld Company, was elected secretary. James E. Sayre of Allied Chemical Corporation, Foster C. Garrison of Columbia-Southern Chemical Corporation, division of Pittsburgh Plate Glass Company, and Alvan H. Tenney of Union Carbide Corporation were named to the board of directors.

EMERY DISTRICT MANAGER: Robert J. Roberts, named district manager in New York of its fatty acid sales department by Emery Industries, Inc., Cincinnati, Ohio.

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Color Additives Bill Seen Wriggling Free

—Continued from page 5

hibiting or permitting the use of certain possibly carcinogenic compounds.

It was also recommended that the following steps be taken:

- Modify existing law, if existing legislation does not permit the secretary to exercise discretion.
- Give greater emphasis by government agencies to a study of representative carcinogens in a variety of animal species in an attempt to define dose-response relations.
- Expand research in the Department of Agriculture, state agricultural experiment stations, and industry to discover additional safe and effective materials for the production and processing of foods.

The committee to aid the secretary in deciding on clearing a carcinogen for use in foods would be made up of scientists appointed from the National Cancer Institute, the Food & Drug Administration, the Department of Agriculture, and the scientists outside of government from a panel nominated by the National Academy of Sciences.

Board Would Make Recommendations

It would be the function of the board to weight evidence and to make recommendations to the secretary on the basis of available scientific data, both on applications for approval of new food additives and in all cases where the withdrawal of a prior approval or sanction is under consideration.

The Kistiakowsky report was brought to the specific attention of the house committee by the Department of Agriculture last week in a letter to Chairman Oren Harris of Arkansas urging deletion of the Delaney clause from the food additives law, or that it be so watered down as to permit the exercise of some discretion in its administration. It cited the Kistiakowsky report as the basis for its recommendations.

As the committee prepared to consider changes in the color bill, the Manufacturing Chemists Association made a last ditch effort to have the bill modified in several particulars over the protests that have been registered by Secretary Flemming. The MCA changes had to do with the scope of the bill, listing of colors and time limits for action on petitions.

MCA, along with other industry witnesses, has asked that the bill not cover additives which are already covered by the food additives law and approved under that law; also substances exempt from the food additives law should be exempt from the color additives law.

Secretary Flemming opposed this proposal because it would prevent the publication of a complete list of approved-as-safe color additives. MCA said it knows of no reason for the emphasis by the Secretary on a complete list of acceptable color additives, and knows of no industry demands for such a list. On the other hand, unless these products are exempted by law it could result in useless duplication of effort by industry.

More Opposition

The Secretary also opposed an MCA proposal that the color bill be limited to only those substances which are used "primarily for the purpose of imparting color." He argued that this would be a step backward and would impose a heavy administrative burden on the government. MCA explained it was not asking that additives not used primarily for coloring be free from regulation entirely, but that they be dealt with under the food additives law.

In a related event during the week, J. Kenneth Kirk, assistant to the commissioner of FDA, told a meeting of the Chemical Specialties Manufacturers Association in Chicago that FDA sees no reason for a change in its views on the regulation of dishwashing compounds in restaurants and hotels.

Direct control rests with state and local authorities, and Mr. Kirk told the meeting that these were his department's views:

". . . Unless we encounter some act of circumstances where the public interest clearly calls for some other course on our part, we would prefer to continue to see the control of restaurant and hotel operations remain with state and local officials rather than to try to deal with them under federal law."

DuPont Awards Chemico Sulfuric Acid Plant Contract

E. I. duPont de Nemours & Co. has awarded contract to Chemical Construction Corporation, New York, to design a sulfuric acid plant to be located at La Porte, Tex.

Chemico will provide engineering, specifications and equipment, but construction will be handled by duPont's engineering department. Slated for completion in 1961, the facility is technically described as a single-train equipment unit.

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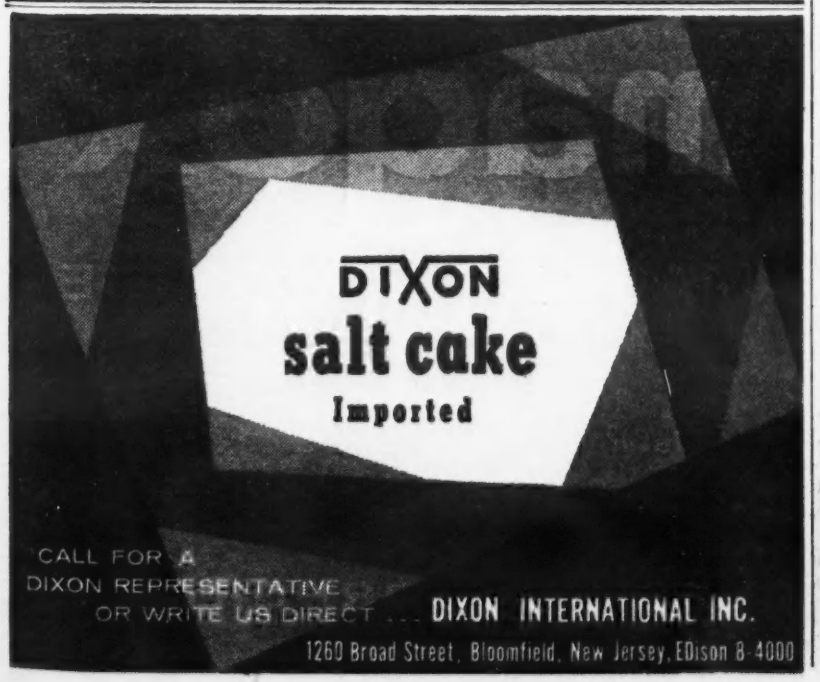

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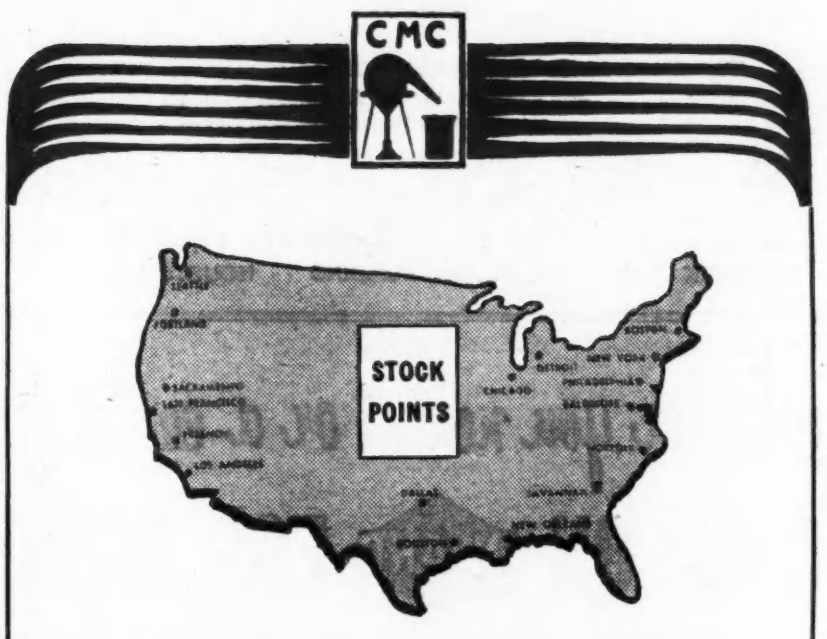

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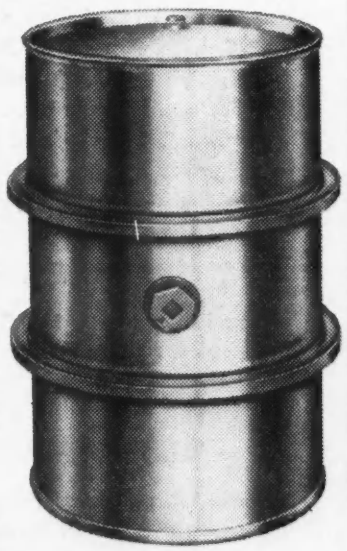

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Chemical Future Blue Chip, Say Four of Five

—Continued from page 3

its gross assets in foreign sales from $72 millions in 1953 to $228 millions in 1959, an increase of 217 percent."

Then he summed up by saying, "Overall we expect our foreign activities to be at least as profitable as our domestic operations."

Mr. Beesley spoke before the financial analysts on the future of drugs and happily offered them this prediction: "...the pharmaceutical market in the United States in 1970 may be double that of 1960."

Turning to the foreign picture, he observed that the trend of expansion abroad may be expected to continue for some time to come. The reason, he said, is that population is growing and the standard of living is improving abroad as well as in the US.

Plastics Business Seen Doubling

Dr. Cairns, in a speech before the National Industrial Conference Board, was equally enthusiastic about what will happen to plastics. He predicted the business will double in size in the next ten years. He added that a major contributing factor will be greater utilization of synthetic materials in the building industry.

"The long-term trend toward replacement of the natural product with the synthetic is continuing unabated," Dr. Cairns said. "This has been noteworthy in the immediate past in such product areas as pharmaceuticals, surfactants, and rubber; in the future, it may well occur rapidly in such fields as construction materials and food."

He forecast no lessening in the growth rate of 9 percent per year for chemical industry as a whole.

Mr. Stauffer, also talking to the financial analysts, held that the world is going to need some important chemical products: improved fertilizers, pesticides, and chemical materials to prevent food deterioration.

He also foresaw synthetic fibers for cloth and plastics for building materials as big comers in the days ahead. Then turning to inorganics, Mr. Stauffer had this to contribute:

Inorganics Now in Spotlight

"Until recently the field of inorganic chemistry has been overshadowed by the infinite variety and glamor of the organics. It now appears that many of the new requirements of the jet and nuclear age can be filled only by inorganic compounds—new high temperature polymers, radiation stable compounds, new hydraulic fluids, etc. The uses and applications of boron, fluorine and phosphorus in these fields are being rapidly expanded."

Mr. Rogosin, speaking before the National Industrial Conference Board, told of his fears about the imports of foreign synthetic fibers. Here, in summary, is the way he put it:

"To show you how serious the situation is...all the newest fibers... nylon, polyesters and acrylics are being brought in in yarn and fabric and they are underselling this country, and then when they build up production beyond the requirements of their home markets we will be swamped by their competition and before long we will have the same situation with polypropylene.

"American industries...now recognizing the threat to their continued profit... are either setting up factories to manufacture abroad or are buying component parts throughout the world. This effort to retain their profits will result in unemployment of American labor."

Sherwin-Williams Licensee Under Latin American Plan

Sherwin-Williams Company de Centro America, SA, has become the first company to be set up under the common market arrangement recently announced by five Central American republics. Earlier this month the company opened a $400,000 paint plant in San Salvador, El Salvador.

Under the arrangement, the paint facilities are owned entirely by stockholders in Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua, signatories of the common market pact. The board of directors is made up solely of nationals of the five countries.

The company is a licensee of Sherwin-Williams Company, Cleveland, Ohio.

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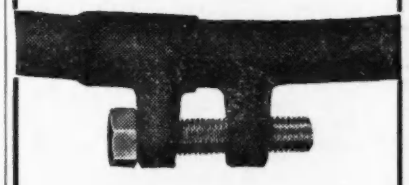

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Chemicals for Reds: Area for Less Tension

—Continued from page 7

export licenses. The action was made effective May 12.

Altogether there are now about 1,000 commodity categories of nonstrategic goods which may be shipped to the European Soviet bloc under general license GLSA. Entries added to the list cover a wide variety of commodities, but those of particular interest to the chemical and allied industries are:

Sperm and whale oil.
Animal oils, inedible, n.e.c.
Fish oils and fish liver oils, inedible, n.e.c.
Stearic acid.
Refined and semirefined vegetable oils (other than deodorized, hydrogenated, and/or winterized), n.e.c., the following only: apricot kernel oil; kapok seed oil; olive oil; palm kernel oil; sweet almond oil; and tea seed oil.
Cocoa butter.
Honey.
Balata, gutta-percha, and other crude allied gums.
Vegetable waxes, refined.
Dextrose, except pharmaceutical.
Molasses, industrial.
Shellac, dry.
Natural gums and resins, crude, refined or modified in condition, n.e.c.
Ginseng.
Vegetable oils, n.e.c. (except essential), and fats, crude, the following only: apricot kernel oil; kapok seed oil; laurel oil; mahwah seed oil; nigerseed oil, olive oil; palm kernel oil; peach seed oil; sweet almond oil; tea seed oil;walnut oil; and wild mustard seed oil.
Essential oils, natural, n.e.c., not presently exportable under general license GLSA.
Aliphatic naphtha (except fuel or gasoline), mineral spirits, solvents, and other finished light aliphatic products, the following only: "Calodorant C"; Captan gas odorant; cleaners' naphtha; cleaning solvents; "Graysol 375"; lacquer diluent; mineral turpentine; paint reducers, petroleum origin; paint thinners of mineral spirits; "Panasol RY-3"; petroleum ether; petroleum solvent aliphatic; petropene; preservatives for wood, textiles, leather and paper, chief value petroleum solvents and/or mineral spirits; "Renuzit"; "Soltrol"; "Sovasol"; "Staroline" spirits; Stoddard solvent; turpentine substitute, chief value petroleum; varnish makers' and painters' naphtha; and "Varsol" varnolene.
Diatomaceous earth and products (including abrasives), n.e.c.
Asphalt and bitumen, natural, unmanufactured.
Mica; and mica manufactures, n.e.c.
Magnesite and magnesia, dead-burned.
Talc, steatite, soapstone, and pyrophyllite not presently exportable under general license GLSA.
Fluorspar, all grades, except optical.
Kyanite and allied minerals, crude, ground, or calcined, except mullite grains and pellets, natural and synthetic.
Other nonmetallic mineral products (other than precious), not presently exportable under general license GLSA, except cuprous pyrites; iron pyrites; lithium-containing minerals (e.g., amblygonite and spodumena); natural mineral wax; and sulfur ores and crude sulfur.
Crude and refined coaltar and other cyclic tars.
Tanning specialty compounds, n.e.c., except chromium tanning mixtures.
Cementing preparations, the following only: acetate cement; cementing compound, sulfur and tar; cementing preparations, for pyroxylin watch glasses; film cement with paraffin; iron cement; polishing wheel cement; soil pipe cementing preparations; solder glue; thread lubricant and seal compound; tire-cut filler; and wallboard cementing preparations.
Chemical specialty compounds, the following only: aluminum stearate solution for waterproofing masonry; brewers' tank coating compound; calcium chloride and salt compound; ceramic printing paste; cigar and cigarette lighter fluids; concrete hardeners; concrete plasticizer compounds; concrete waterproofing compound; "Diol" oleate (rubber thread lubricating compound); etching compounds; fluorescent powder, daylight (magnesium sulfate and ammonium tungstate); glycerol stearate (emulsifying agent); indicating paste; industrial enzymes; ink conditioners; ink thinners, for cellophane printing; leather binding compounds; metallic hardeners for cement floors; model airplane engine fuels; paper-coating paste; pickling inhibitors; plant hormones; road binding compound; saturating compounds, asphalt base; screening pastes; shark deterrents; shellac substitutes; talc paste; and white camphor oils.
Paint oil, SPX (linseed oil substitute consisting of fish-oil base and thinners).

Archer-Daniels Plans

—Continued from page 3

now under test and market evaluation. These will be manufactured at the new Peoria chemical center, he added.

Ground will be broken for the installation in late summer or early fall, with plant operations scheduled to begin in the spring of 1962. The center will represent a grouping of several chemical processing facilities.

The Peoria unit will be one of the most modern of its kind in the country and the most versatile plant in ADM's chemical group. Including the most advanced processing techniques for hydrogenation, molecular distillation, continuous splitting, epoxidation and ammonolysis, it will be readily adaptable to production of future chemicals developed through ADM's research activities, the company reports.

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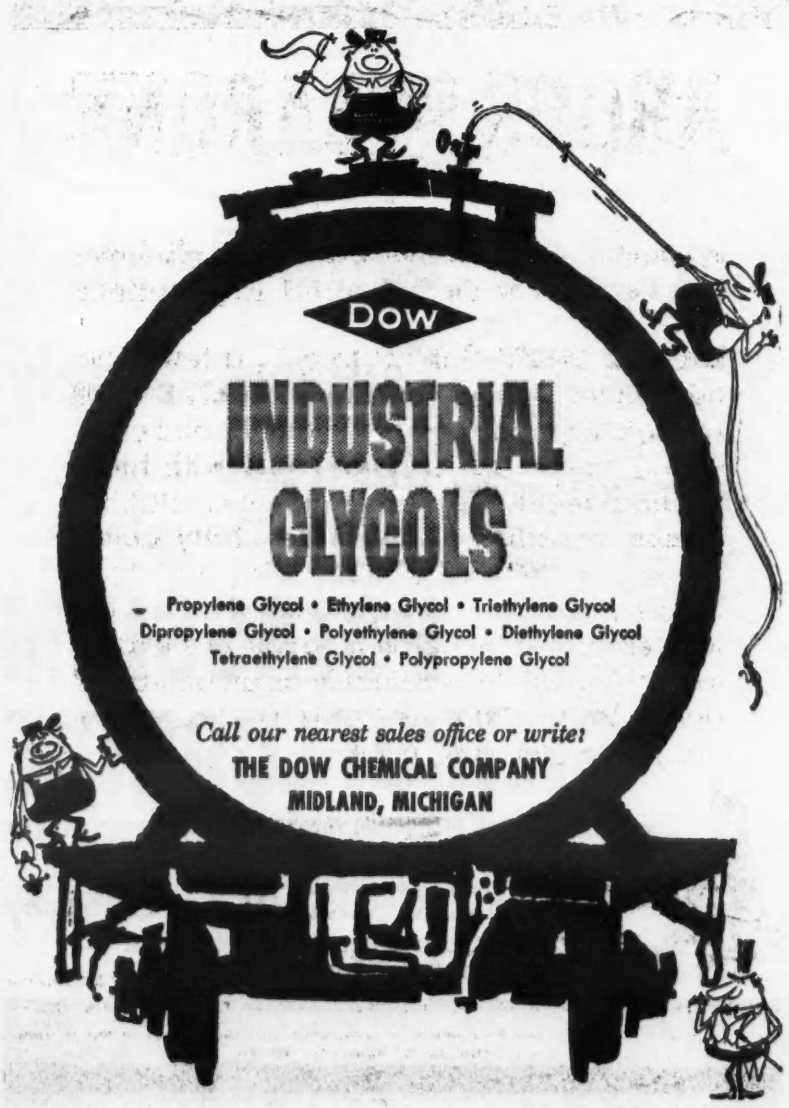
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Aliphatic Organics

Foreign trade has lately become a two-way street. In March, there was one consolation: US exports, as reported here a fortnight ago, went way above the February levels. Now, with import statistics available, one notes that the traffic was heavy in both directions. In fact, of all the aliphatic organic chemicals for which the Census bureau tabulates imports monthly, not a single decline was reported. Increasing most significantly were inshipments of trichlor and perchloroethylene. Trichlor imports, as the table below reveals, were up 4 million pounds, perchlor better than one million. Markets for both chemicals, according to trade reports, have felt the sting of lower-priced foreign material for several months.

Imports of ethyl alcohol also reached a record high in March. At 4,408,288 gallons, shipments were bigger than the quantity brought in during all of 1959, even surpassed the combined total for the first two months of 1960—4,262,791 gallons—which some in the trade considered a rather significant figure.

But, as opposed to January and February, when foreign alcohol landed at both Philadelphia and Galveston, all the March stuff went to Galveston. This material was valued at $1,020,723 and carried a duty of $330,617.

Foreign suppliers of alcohol in March, as in the first two months of the quarter, were: Brazil 1,758,060 gallons, valued at $361,254, dutied at $131,854; Cuba 1,609,569 gallons, valued at $407,738, dutied at $120,716; and Finland 1,040,637 gallons, valued at $251,731, dutied at $78,047.

Tetrachlorethane imports in March were 4,582,562 pounds. Valued at $193,808 and dutied at $29,071, the entire quantity came from Italy.

Acetylene—Two major US firms—one associated primarily with dairy products, the other with rubber—have put their corporate heads together and come up with a rather unique scheme.

The two have formed a jointly-owned chemical company which will erect a major chemical manufacturing unit using hydrocarbons such as natural gas or low flash point liquid fuel as a starting point for the production of acetylene and vinyl chloride monomer.

Present plans then provide that both companies will erect adjacent, individually-owned plans which will use the output of the mutually-owned facility for the manufacture of other chemicals.

Under such a system, the partners say, the new chemical company will be an economical source of basic chemicals for the product lines of the parent organizations. And from a long-range viewpoint, they add, it will provide a base for independent expansion into new fields by each company.

Budget for the entire chemical plant complex is $50 million.

Construction of the mutually-owned facility is to start later this year with completion slated for 1962. Initial capacity will be 80 million pounds of acetylene and approximately 150 million pounds of vinyl chloride monomer, making it one of the largest plants of its type in the country.

At the outset, the plant's output will be channeled to the manufacture of vinyl plastic resins by both of the partner firms.

Although not yet selected, plant site probably will be located in either Lousiana or Texas. Options have been taken on several industrial sites in both states roportedly.

Figuring in site selection, are several factors: accessibility of basic chlorine supplies; ample land for long-range expansion, and marine loading facilities for shipment of both raw materials and finished products.

Carbon Tetrachloride—Trade reports indicate the market domestically is unchanged with prices steady at long-established levels. Apparently, imports have had no unsettling influence. So far, the foreign material offered here is small in comparison with US monthly production in excess of 25 million pounds.

March imports were 418,858 pounds, valued at $36,838 and dutied at $3,558. There were three suppliers: Canada 277,860 pounds, valued at $28,341, and dutied at $2,361; Italy 99,000 pounds, valued at $6,229 and dutied at $841; and West Germany 41,998 pounds, valued at $2,268 and dutied at $356.

Ethyl Alcohol—Alcohol production in March was 43,492,083 tax gallons, compared with 41,550,219 gallons in February and 42,994,558 gallons in March, 1959. Cumulative total, July 1, 1959 to March 31, 1960, was 376,421,133 gallons against 355,214,045 in the comparable period a year earlier.

Alcohol withdrawals for denaturation in March amounted to 44,111,547 gallons, compared with 50,005,150 the month before, and 43,267,165 in March, 1959. This brought the cumulative total, July through March, to 385,373,187 gallons, up from 349,862,849 in the like period a year earlier.

Stocks of alcohol remaining in denaturing facilities as well as in other bonded storage at the end of March totaled 26,506,304 gallons, down from 29,123,519 thirty days earlier, and 29,644,981 the same date in 1959.

Production of completely denatured alcohol in March was 75,068 wine gallons, far above figures for February (56,725), and March, 1959 (46,521). Output July through March was 562,842 gallons versus 630,727 during the comparable period a year ago.

Withdrawals of completely denatured alcohol in March amounted to 75,699 wine gallons, bringing the cumulative total for the fiscal year to March 31, to 568,924 gallons. This compared with 623,712 during the same period in '59. Stocks remaining at the month's end: 17,015 wine gallons.

Production of specialty denatured alcohol (SD) in March was 23,599,275 wine gallons, down from 26,700,116 in February, but slightly above March 1959 (23,196,116). Output July through March amounted to 206,647,971, versus 187,733,306 the year before.

Withdrawals of SD alcohol in March were 25,290,696 wine gallons, up from 25,129,890 in February and 23,455,902 in March 1959. Cumulative total was 210,191,748 gallons compared with 189,907,643.

At the end of March, stocks of SD alcohol were down to 3,711,666 wine gallons from 5,272,989 a month earlier and 4,082,900 a year earlier.

Glycerine—Glycerine stocks at the end of March totaled 60 million pounds—just under a ninety day supply—up from 57.1 million on February 29. Occasioning this

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	May 22, 1959
132.19	132.19	132.19	130.50

For Current Prices see page 10

Aliphatics Foreign Trade: March

Imports of selected industrial aliphatic organics for the months of February and March, 1960, as reported by the Bureau of Census, were as follows:

		March	February
Acetic acid (over 65 percent)	lbs.	656,982	448,660
Acetic anhydride	lbs.	152,250	79,450
Amyl alcohol and fusel oil	lbs.	0	0
Chloroacetic acid (mono and tri)	lbs.	1,379,232	628,994
Formic acid	lbs.	319,810	307,192
Glycerine, crude	lbs.	2,087,526	316,438
Carbon tetrachloride	lbs.	418,858	384,992
Lactic acid (55 percent or more by weight)	lbs.	42,552	23,792
Perchloroethylene	lb.	2,405,133	1,331,868
Trichloroethylene	lbs.	6,000,012	1,926,245
Vinyl acetate, unpolymerized	lbs.	4,596,960	3,937,580
Vinyl alcohol, including derivatives	lbs.	0	0

Aliphatic Organics

rise was an increase in production and a decline in disappearance.

As indicated in a preliminary report from an industry source which appeared in this space a week ago, output of crude and synthetic glycerine in March totaled 27.8 million pounds, up from 25 million in February. This brought the cumulative total for the first three months of the year to 78.4 million pounds, versus 61 million in the corresponding period a year ago.

Glycerine disappearance in the March quarter, according to the Association of American Soap and Glycerine Producers, was 72.9 million pounds this year and 62.3 million last year. Compared with February, however, disappearance in March, at 22.6 million pounds, was down 400,000 pounds.

Compensating for the drop in US consumption, exports in March soared to 4 million pounds from 1.3 million in February. Total for the first quarter went to 6.4 million pounds, 4.2 million over the figure for the corresponding period in '59.

Imports were also up in March—to 1.7 million pounds from 300,000 the preceding month. The January-March total was 2.9 million, compared with 3.2 million during the same quarter a year ago.

Shipping crude glycerine to the US in March were Indonesia, the Philippine Republic, and Cuba.

As reported by the Census bureau, Indonesia supplied 1,014,116 pounds which was valued at $157,336 and dutied at $4,056; the Philippines supplied 673,392 pounds, valued at $128,149 and dutied at $269; and Cuba supplied 400,018 pounds, valued at $73,086, and dutied at $1,598.

Molasses—Markets for feeding cane molasses were steady to firm during the week ended May 17. Demand was slower than a week ago, Agricultural Marketing Service said, but as distributors were reluctant to sell at the bottom of the price range at New Orleans, a steadier tone developed.

Hawaiian cane blackstrap production in April amounted to 4,796,721 gallons, bringing the cumulative total for the first four months of the year to 12,125,952. In 1959, April production was 7,579,062 gallons with the four month total 16,340,760.

Shipments of Hawaiian blackstrap to the US mainland were 5,122,647 in April this year, and 6,091,875 in April of '59. The January-April total was 14,166,328 this year, 18,248,994 last.

Perchloroethylene—Like imports of all other organic chemicals tabulated by the Census bureau monthly, March imports of perchloroethylene rose above the February level. In perchlor's case, the increase amounted to better than a million pounds.

Total quantity received here in March was 2,405,133 pounds. Value was $172,544; duty $10,347.

Suppliers were: Belgium 1,633,867 pounds, valued at $118,114, and dutied at $7,086, France 496,272 pounds, valued at $37,571, dutied at $2,252; Japan 140,000 pounds, valued at $9,260, dutied at $554; and Italy 104,994 pounds, valued at $7,599, dutied at $455.

Propyl Alcohol—As was the case with most other glycols in March, exports of propyl alcohol far surpassed the quantity shipped abroad in February.

For propyl, outshipments totaled 3,686,860 pounds, with the value, as reported by the Census bureau, $613,292. February volume was 427,964.

Trichloroethylene—March imports of trichloroethylene were huge. Nine countries shipped a total of 6,000,012 pounds. As reported by the Commerce department, the value of the entire quantity was $396,344, the duty $41,599.

Realizing that a paragraph of figures can be dismaying to any reader, we hesitate to list the volume, value, and duty of the material shipped from each of the eight suppliers. Nonetheless, we will for the simple reason that the figures illustrate several interesting points—the difference between the value and quantity of the trichlor shipped by West Germany and East Germany, for example:

United Kingdom: 1,995,912 pounds, valued at $123,524, dutied at $9,259.

East Germany: 1,059,052 pounds, valued at $52,842, dutied at $15,852.

West Germany: 1,002,753 pounds, valued at $58,177, and dutied at $4,362.

Sweden: 442,000 pounds, valued at $27,773, dutied at $2,081.

France: 796,400 pounds, valued at $57,718, and dutied at $4,325.

Sweden: 442,000 pounds, valued at $27,773, dutied at $2,081.

Canada: 405,140 pounds, valued at $54,149 (compare this with Sweden above), dutied at $4,060.

Italy: 200,255 pounds, valued at $15,653, dutied at $1,173.

Japan: 66,000 pounds, valued at $4,203, dutied at $315.

Netherlands: 32,500 pounds, valued at $2,295, dutied at $172.

Borden, US Rubber Partners

—*Continued from page 3*

chloride monomer yearly. This would make it one of the largest plants of its type in the country.

The major initial use of this plant's output would be in the manufacture of vinyl plastic resins which Borden makes in Leominster, Mass., and US Rubber produces in Painesville, Ohio.

Borden and US Rubber, from their headquarters in New York, have just revealed the optioning of several industrial sites in Louisiana and Texas. Other locations are under consideration.

The new company, it is said, would be an economical source of basic chemical components for the present product lines of the parent organizations.

From a long-range viewpoint, the combined venture is expected to provide a base for independent expansion into new fields by each company.

Borden and US Rubber decided to join in the construction of the hydrocarbon-based plant when it was determined that the total of their individual needs for vinyl monomer, other acetylene-based chemicals and by products, would make such a plant feasible.

Both parties indicated that important elements in final site selection will be the accessibility of basic chlorine supplies, ample land for long range expansion and marine loading facilities for shipment of both raw materials and finished products.

It is estimated that the new plant will be completed in 1962.

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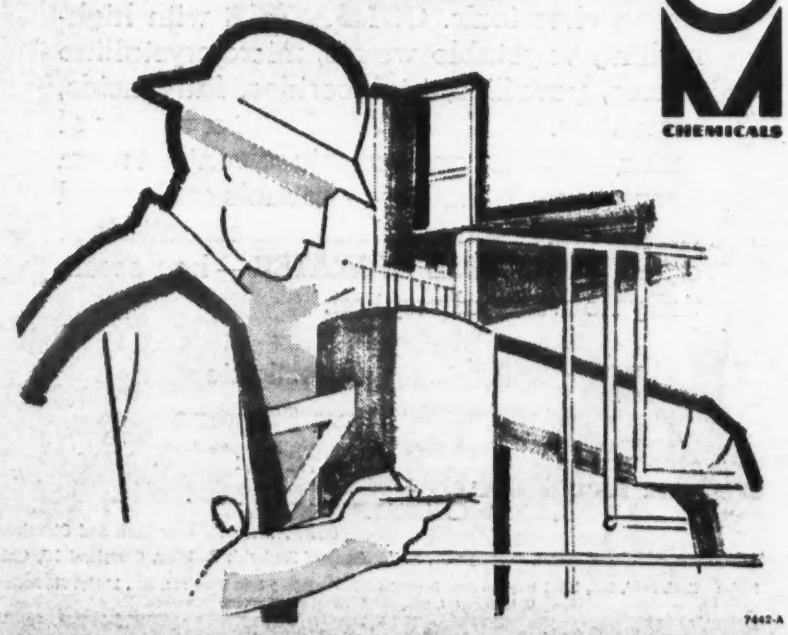

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Soybean Industry Scans Future

OPD 'Depth' Report on Soybean Oil

—Continued from page 9

scarcity of coconut oil, but it may have been a breakthrough. Even when coconut oil becomes plentiful, the English may find that they prefer soybean oil.

The non-food or technical uses of soybean oil, which now account for some 11 percent of domestic use, are expected to grow roughly 2 percent per year by 1965. But the volume is so small that this growth is not significant in the total soybean oil picture.

In the synthetic resin field, which is expected to show the most expansion, tall oil is a strong competitor. Tall oil fatty acids, a fraction of a cent per pound cheaper than soybean oil fatty acids (because of the expense of adding glycerine to the soybean oil), have been proved to be a satisfactory ingredient in alkyd resins.

The question is by no means settled, but during the past few years, the quality of tall oil has been improved by better methods of refining. Nowadays, it is possible to remove all but a trace of rosin, thereby practically eliminating the yellowing properties that used to characterize tall oil fatty acids.

Another factor in tall oil's favor is price. It is definitely a byproduct and its price can be adjusted downward seemingly to meet almost any level of competition.

In favor of soybean fatty acids is the fact that tall oil must contain some rosin —even though it is in minute quantities. However, the only test that is available to determine rosin is so sensitive that it detects the smallest possible trace. Government contracts insist there be no rosin; some customers follow the government's specifications; hence, that trace of rosin, until a different type of test is devised, will keep a lot of potential customers away from tall oil.

Other non-food uses for soybean oil are being worked on in the laboratories, but few persons speculate that any one of them will ever account for a substantial portion of the total oil market.

At the Northern Regional Research Laboratory, work is being done on vinyl ethers—with emphasis on copolymers. These copolymers are being tested as protective coatings for metals and they are said to have excellent adhesion to metals and cure rapidly at elevated temperature to insoluble, hard but tough films with very little discoloration.

Still, the consensus is that no matter how much research is done to develop new non-food uses for the oil, the volume will never rise above 11 percent of the total.

Hence, it looks like the key concern of the soybean industry in the future will lie with efforts to solve the reversion problem, re-education of consumer palates, and aggressive sales efforts in foreign markets.

Soybean Oil Report to Be Reprinted

OPD's special "in-depth" report on soybean oil is being reprinted and will be available shortly. These seventeen previous studies are also still in print:

"ENZYME FORECAST FOR 1965: $60 Million Demand Seen in Five Years."
"BROMINE GROWTH IS PROMISING: But Ethylene Dibromide Is Baffling."
"BHC FIGHTS MANY FOES: Market Woes, Weevils Conspire."
"METHYLAMINES MARKET POSERS: DuPont's Moves Hold the Answers."
"PHTHALIC ANHYDRIDE'S STORY: Naphthalene Holds the Key to Growth."
"SODIUM SULFATE OUTLOOK: Will Output Jump Another 200,000 Tons?"
"OPTICAL BRIGHTENERS: Why There May Be Gold in Paper."
"ACETONE'S OUTPUT RISE: Calm Surface, Troubled Depths."
"MALEIC ANHYDRIDE EXPANSION: Is Industry Capacity Going Amok?"
"LYSINE MONOHYDROCHLORIDE: Sales to Multiply 25 Times in Three Years."
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"ULTRAVIOLET ABSORBERS: Lighting the Way to $10 Million Market."
"DOP, DIOP VOLUME RISES: But the Profit Squeeze Continues."
"BUTADIENE CONVALESCES: Industry Recovers from Poor '58."
"STYRENE MONOMER'S STORY: The Industry's Three Big Questions."
"CHELATING AGENTS: A Phenomenon Has Growing Pains."
"TITANIUM PIGMENT: Why Producers Scoff at Recession."

Reprints of the eighteen articles may be obtained at 35 cents a copy (discounts on quantities of a hundred) from OIL, PAINT AND DRUG REPORTER'S Reprint Department, 30 Church Street, New York 7.

Coal Chemicals Trade Has 3 Keys to Future

—Continued from page 7

fication, have a promising future, Mr. Winne declares.

Turning his attention to coaltar's past performance, the Koppers executive finds grounds enough for confidence in the industry's future.

An average of 1957 and 1958 as representative high and low years, respectively, yields the following annual chemical recovery from coal coking:

- 452 million pounds of ammonia.
- 940 billion cubic feet of gas.
- 260 million gallons of crude light oil.
- 771 million gallons of crude tar.

Included in this astronomical tonnage are little-known esters that are playing an increasingly important part in the nation's well-being as well as in the coke-oven industry's prosperity.

Tricresyl phosphate esters and trixylenol are described by Mr. Winne as "typical unseen friends," acting as lead scavengers in gasoline and as hydraulic brake fluids for automobile breaks.

He cites the reaction product of isobutylene and paracresol as an anti-oxidant which is used in both gasoline and oil to prevent sludge formation and carbon pick-up.

Butylated paracresol is mentioned not only as a motor oil additive but as a process material in petroleum refining for prevention of oxidation losses.

Aside from the phenolic resins field, thermoplastic compounds account for large quantities of tar acids, again in the form of phosphate esters, Mr. Winne notes.

"Tar," concludes Mr. Winne, "is more than a black liquid fuel—it is rather a complex mixture of chemicals and a tremendous source of raw materials for compounds that are indispensable to our way of life."

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Agricultural Chemicals

A new price listing for potash of muriate and potash of sulfate of Western European origin has been announced. To date four domestic producers have announced their new listings for potash of muriate for the 1960-61 fertilizer season. The latest schedule calls for 55½ cents per unit K_2O for shipment, against contract, from Europe by September 30, 1960. For domestic potash of muriate schedules call for 33 cents to 34 cents per unit K_2O on contracts for July-October shipment f.o.b. Carlsbad. The European potash arrives at Atlantic ports and Tampa, Florida, and is on an ex vessel basis.

Forecasts of domestic consumption of commercial fertilizer by 1975 were made last week. They include an estimate of 10,000,000 tons of fertilizer to be consumed annually by 1975. The forecast was made by TVA agricultural economists in their biennial report, "Fertilizer Trends."

Consumption at the present time is 6,500,000 tons. The three primary plant nutrients, nitrogen, phosphate, and potash make up this total. The report states that over the next 15 years, the tonnage of nitrogen used will increase from the present estimated 2,300,000 tons to about 4,000,000 tons. Tonnage of phosphate consumed is expected to go from the present 2,300,000 tons to almost 3,200,000 tons, while potash usage from the present 1,900,000 tons to 2,800,000.

The report lists major producers of elemental phosphorus, anhydrous ammonia and other materials, but does not give production figures. According to the report, there are seven major producers of elemental phosphorus with an annual capacity of 439,000 tons, with one additional plant under construction. Fifty-six anhyrdous ammonia producers are reported to have a yearly capacity of 5,082,000 tons with eight plants being built.

The Russians also are optimistic about fertilizer consumption. Their present Seven Year plan calls for a tripling of the 1953 output and use of mineral fertilizer by 1965. Success in the fertilizer program is seen as a key to achieving the ambitious goal of increasing gross agricultural production by 70 percent.

The production of mineral fertilizer in the USSR is expected to increase from 12.4 million metric tons in 1958 to 35 million metric tons in 1965. The output is supposed to rise modestly during the early years of the plan but by 1965, the annual increment to production is expected to be more than four times as great as new factories are brought into production and existing factories modernized.

According to the publication "Foreign Agriculture," the goals the Soviets have set for themselves may well be beyond their capabilities but it is believed that the end of the plan should see at least a doubling of its 1958 output.

The Food and Drug Administration has given its tentative approval to the first of what is expected to be a series of microbial pesticides. An exemption from the tolerance requirements of the Miler Bill was granted for the microrganism Bacillus Thuringiens's Berliner.

The pesticide is being offered for use on alfalfa, apples, artichokes, beans, brocolli, cabbage, cauliflower, celery, cottonseed, lettuce, potatoes and spinach.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	May 22, 1959
109.97	109.97	109.97	112.02

For Current Prices see page 10

Ammonium Nitrate—In shipments during March of ammonium nitrate (32 percent or more nitrogen) totaled 26,958 tons with a value of $1,540,392. Canada was the sole exporter to the US.

Imports of ammonium nitrate (32 percent or less nitrogen) amounted to 3,002 tons and had a value of $119,513. West Germany supplied 1,753 tons, Canada 654 tons, and Norway 595 tons.

Ammonium Sulfate—Imports of ammonium sulfate during March were 45,730 tons. Value of the shipments was placed at $1,525,092. West Germany supplied 45,730 tons and Canada 32,312 tons.

Animal Proteins—The market for fishmeal and fishscrap is described by one source as listless and dull. Quotations continue at their lower levels with fishmeal at $100 per ton, on both Atlantic and Gulf coasts. Fishscrap held at $96 per ton, same basis.

Potash Sulfate—A new price schedule for potash sulfate was announced last week. The announcement covers sulfate of potash of western European origin, for shipment to US Atlantic ports and Tampa, Florida. For the season, July 1, 1960 through June 30, 1961, the prices are, ex vessel, in bulk, per unit K_2O.

For bulk material, ordered against contract, to be shipped from Europe by September 30, 1960: 87c.

For bulk material, ordered against contact, to be shipped from Europe after October 1, 1960 and by December 31, 1960: 89c.

For bulk material, ordered against contract, to be shipped from Europe after January 1, 1961 and by June 15, 1961: 91c.

Also included in the announcement is a new listing for potash muriate. It states that for 60 percent K_2O the price per unit K_2O, for shipment to US Atlantic ports and Tampa, Florida, ex vessel is: For bulk material, ordered against contract, to be shipped from Europe by September 30, 1960, standard muriate 55½c. and 56½c. for coarse or granular muriate. For shipments from Europe after October 1, 1960 but before December 31, the price per unit is 57½c. for standard and 58½c. for coarse or granular. For material shipped from Europe after January 1, 1961 but before June 15 standard will be 60c. per unit and 61c. for granular or coarse muriate.

Farm Chemicals Imports: March

Following are data compiled by the Census bureau indicating volume of imports of agricultural chemicals for February and March, 1960. Figures for ammonium phosphates and fishmeal and scrap account only for that material intended for use as fertilizer. All figures are in short tons.

	February	*March*
Ammonium nitrate (over 32 percent N)	16,834	26,958
Ammonium nitrate mixtures (32 percent N or less)	11,571	3,002
Ammonium phosphate	10,266	18,069
Ammonium sulfate	25,377	45,730
Calcium cyanamide	4,136	3,352
Castor bean pomace	1,102	—[1]
Dried blood	739	197
Fishmeal and scrap	1,404	1,746
Guano	15	56
Nitrogen Solutions	2,269	5,350
Peatmoss (fert. grade)	24,845	39,685
Phosphate rock	8,807	6,882
Potassium chloride, crude	65,034	26,634
Potassium nitrate, crude	35	75
Potassium sulfate, crude	6,756	13,254
Sodium nitrate, crude and refined	17,622	39,043
Urea	10,566	5,669

[1] Figures not available.

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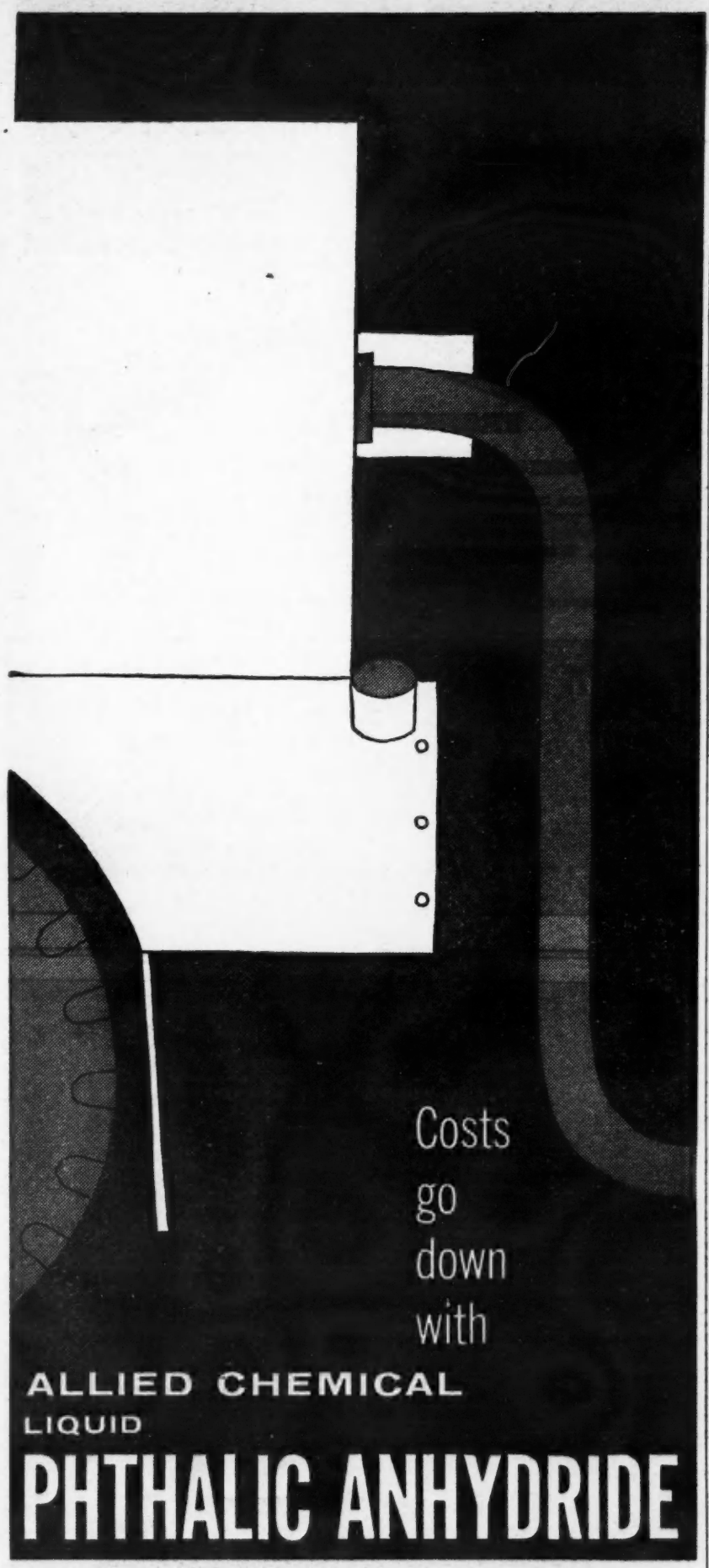

In molten form, Allied Chemical Phthalic Anhydride costs less per pound than flake . . . saves time, labor and storage space . . . eliminates waste . . . boosts productive capacity. Shipped express in stainless steel tank trucks and tank cars from conveniently located plants (Philadelphia, Chicago, and Ironton, Ohio). Allied Chemical liquid Phthalic is held to highest purity in transit. Also available in smooth-flowing flake form in "unitized" shipments.

PLASTICS AND COAL CHEMICALS DIVISION
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Allied Chemical

Coal Chemicals

A world wide shortage of naphthalene continues to be a dominating factor in the coal chemicals picture. Consumers here have operated on hand to mouth quantities of naphthalene and reports from responsible trade sources indicate that some European consumers are paying 12 cents to 14 cents per pound for naphthalene. An increasing amount of Iron Curtain naphthalene is being absorbed at home as the Russians turn out more phthalic anhydride and process it into end-products. Italy, which has obtained fair quantities of naphthalene from Russia in the past, has reportedly purchased o-xylene requirements for next year and beyond and will run an estimated 65 percent to 75 percent o-xylene depending on the amount of naphthalene available.

Other phthalic producers on the continent have evaluated ortho with favorable results. Sources say that yields per pound have been obtained that compare favorably with those from naphthalene, but that other problems (heat transfer and output per hour) cut into operating efficiency.

As yet there is no significant production of ortho in Europe. A petrochemical producer in this country has a joint venture with a French chemical concern for producing the para isomer for use in synthetic fiber production. French demand is reported equal to output of this plant and other isomers are not now in the picture.

Observers set the end of the third quarter as the time for a tapering off in benzene demand. At the close of the steel strike it had been supposed that sixty days would see a slackening in demand and that by midyear the pace would have slowed substantially. Large consumers remain active in the market and have not been able to build the inventories they would like to have.

Tar acids movement is only fair, according to most reports. The pyridine supply has shown no sign of loosening. Occasional drum lots are reported commanding up to 90 cents a pound.

The American Iron and Steel Institute estimated that steel production in the week ended May 22 would amount to 71.7 percent of theoretical capacity equivalent to 2,042,000 net tons of steel. Output in the week previous was 2,102,000 tons, 2,238,000 in the comparable week one month ago and 2,644,000 net tons in the corresponding week one year ago.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	May 22, 1959
118.40	118.40	118.40	118.56

For Current Prices see Page 10

Basic Products

Benzene—March imports of benzene, all from Russia, totaled 4,562,693 gallons. At Mobile: 3,000,000 gallons with a value of $710,829 and at Galveston, 1,562,693 gallons valued at $363,326.

Domestic market is unchanged. Material is in short supply and expected to remain so for the balance of the quarter at least. Price is unchanged at 34c. per gallon, tanks, works.

Veteran sources now place the end of the third quarter as the time for an easing off in benzene demand. Large consumers remain active in the market.

Naphthalene—Observers see no letup in the demand for naphthalene on the continent. Trade sources report that most of the big phthalic makers overseas have continued to evaluate o-xylene for use in production of PA.

Italy, which has received good quantities of naphthalene from Russia in the past, in exchange for phthalic anhydride, has reportedly purchased o-xylene requirements for next year and beyond and plans to run 65 percent to 75 percent ortho depending on the amount of naphthalene that will be available. Presumably this would be a "blocked" operation in which ortho would be run and then a switch made to naphthalene, although some sources feel it might be possible to run a blend of the two materials. Critical point in running these two materials interchangeably is the catalyst. Sources point out that the catalyst used for burning naphthalene is "not exactly the best for o-xylene."

Over the long pull the market in this country is not expected to remain tight despite the fact that the trend in the coking industry is to the production of less tar and use of end-products continues to expand. Petroleum companies have been exploring possibilities for getting into the market and coaltar sources are expected to regain supply balance by the end of the year.

Phenol—Producers are meeting contract commitments and managing to ship some additional material. Although first quarter exports were about 5 million pounds less than in the comparable quarter of 1959, trade sources feel second quarter figures will show phenol exports were very strong.

Pyridine — Census bureau reported March imports totaling 4,689 gallons. A breakdown indicates that material coming from the United Kingdom during the month amounted to 2,219 gallons valued at $9,741 while material from Russia amounted to 2,461 gallons with a value of $11,072.

Occasional small lots (10 to 25 drums) are reported commanding 85c. to 90c. per pound. The outlook for the coming months is not bright. Consumers continue to take all the material they can get.

Tar Acids—Movement remains only fair in these markets, sources report. Prices are unchanged. Supplies fully adequate for trade requirements.

Toluene—Demand is routine. Solvent requirements have shown a slight improvement with warmer weather and an upturn in coatings business. Needs for toluene as an intermediate in the production of other chemicals is steady. Good export demand (110.4 million pounds in the first quarter as against 54 million in the first quarter of last year) as well as the large amount of toluene retained in the gasoline stream have served to bolster

Aromatics Foreign Trade: March

Following statistics are compiled from Census bureau reports. Units used by the bureau are retained in all cases. Attention is called to the fact that exports of toluene are reported in pounds.

		March 1960	*March* 1959	*First Three Months* 1960	*First Three Months* 1959
EXPORTS					
Benzene	gals.	833,910	362,291	3,585,724	2,840,899
Coaltar, crude and refined	gals.	42,065	9,745	102,782	58,582
Creosote or dead oil	gals.	5,718	27,781	7,306	62,085
Cresols and cresylic acids	lbs.	897,027	595,212	2,755,437	2,238,724
Phenol	lbs.	4,914,123	5,093,638	9,845,086	14,785,929
Phthalic anhydride	lbs.	1,229,162	526,400	2,420,645	2,457,680
Pitch	short tons	2,496	3,688	7,609	10,863
Toluene	lbs.*	37,794,729	8,897,319	110,481,176	54,022,501
IMPORTS					
Benzene	gals.	4,562,693	2,110,198	10,035,293	15,132,288
Creosote and deal oil	gals.	4,007,993	2,660,758	10,806,937	*12,027,182
Cresols and cresylic acid, ADF	gals.	79,404	243,619	476,688	512,355
Naphthalene, melting point less than 79° C.	lbs.	2,344,063	8,632,159	11,155,027	22,700,614

* Revised.

Coal Chemicals

the market. However, producers continue to look for more profitable ways of disposing of their toluene than to these outlets. Some sources feel the export price has been firming.

Intermediates

Diphenyl—Material finds use as a dyeing accelerator in fibers which are difficult to dye such as polyesters. These fibers are said to take deeper more level coloring when a "carrier" of this sort is added to the dye bath. The chemical appears to increase the rate of dye diffusion into the polyester fiber with subsequent acceleration of the rate of absorption.

Dodecylbenzene—Sources report routine demand in this market. Soap and synthetic detergents sales hit a new peak in the first quarter of 1960, according to recent report of the Association of American Soap and Glycerine Producers. Syndet sales were 825.8 million pounds, an increase of 12.7 percent over the first quarter of last year.

In a breakdown of figures, the Association reported sales of solid detergents totaled 664 million pounds during the three month period as against 161.7 million for liquid detergents.

Phthalic Anhydride—Export of phthalic anhydride in March amounted to 1.2 million pounds and brought the total for the first three months of the year up to 2.4 million pounds. A similar amount was exported in the first three months of last year.

Sources here see no sign of a letup in demand for naphthalene, raw material for phthalic production, in Europe and Japan. The high level of activity overseas has served to divert much naphthalene to these sources at attractive prices, with a subsequent slackening in the amount of material made available here.

An integrated producer reported plans for the construction of a phthalate plasticizer manufacturing unit to be constructed at Long Beach, Calif. The unit is scheduled to be in operation by mid-'61 and is expected to fill the growing needs of the vinyl plastic processing industry on the west coast. The company has maintained storage and blending facilities at Long Beach since 1952.

Toluenesulfonic Acid—Last price action in this market was in late March of this year. At that time shipping terms were shifted from works basis to freight allowed and a new schedule for 55-gallons drums was established which is 2c. per pound less than the one for 100-lb. containers.

Tankcar price is 14c. a pound, truckload of 55-gal. drums is 16c. and less truckload of 55-gal. drums, 18c. a pound.

TSA finds use in organic reactions requiring a strong acid catalyst. This intermediate helps to produce higher yields with fewer side reactions and eliminates degradation products caused by oxidizing mineral acid catalysts such as sulfuric.

Some suggested applications include use in production of phenol formaldehyde and alkyd resins, phthalate esters, and epoxy resin varnishes.

Last week a chemical producer announced that TSA will be offered from a unit in Newport, Tenn. Earlier in the month the producer announced acetanilide would be available from this unit.

Coal Chemicals

Estimated output of coal chemicals recovered from cokeoven operations during the week ended May 22, was as follows:

Ammonia liquor	lbs.	646,713
Ammonium sulfate	lbs.	27,189,502
Benzene	gals.	2,621,973
Coaltar	gals.	14,331,058
Crude chemical oil	gals.	419,036
Solvent naphtha	gals.	83,807
Toluene	gals.	586,651
Xylene	gals.	167,614

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p-AMINOPHENOL
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4-CHLORO-2-AMINO ANISOLE
o-CHLORANILINE
p-CHLOR-o-NITRANILINE
4-CHLOR-2-NITRO ANISOLE
4,4'-DIAMINO-DIPHENYLAMINE-2-SULFONIC ACID
2,4-DIAMINOANISOLE
2,5-DICHLORANILINE
2,5 DICHLORNITROBENZENE
ETHYL p-TOLUENE SULFONATE
o-FORMYL BENZENE SULFONIC ACID
6,6'-IMINO BIS-(1-NAPHTHOL 3-SULFONIC ACID)
3-METHYL-1-(2,5-DICHLORO SULFANILIC)-5-PYRAZOLONE
3-METHYL-1-PHENYL-5-PYRAZOLONE
3-METHYL-1-(4-SULFO PHENYL)-5-PYRAZOLONE
3-METHYL-1-(3-SULFO PHENYL)-5-PYRAZOLONE
METHYL p-TOLUENE SULFONATE
5-NITRO-2-AMINO PHENOL
5-OXO-1-PHENYL-2-PYRAZOLINE-3-CARBOXYLIC ACID ETHYL ESTER
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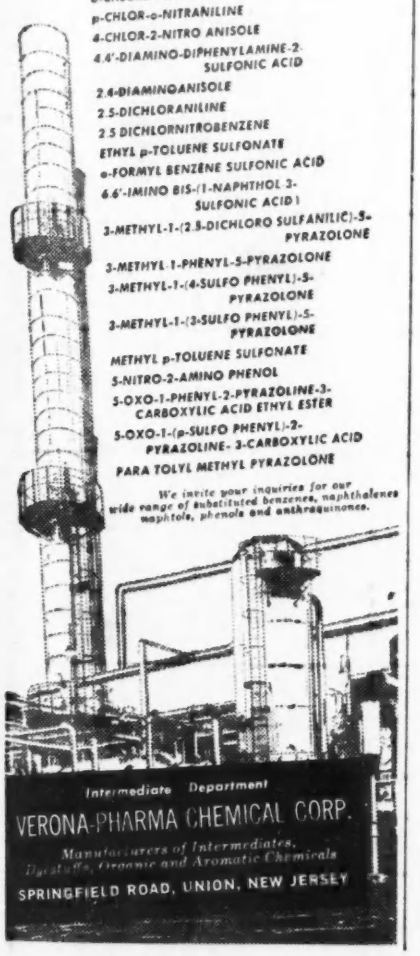

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	Type & Name	Usage	Potency (in U.S.P. units per gram)	Additive	Stability	Mesh Size
LIQUID TYPES	**P1MO** Vitamin A palmitate *(liquid)*	In tablets, aqueous dispersions, capsulated products	1,000,000	Edible oil only, for standardization	Excellent	—
	P1MO/BH Vitamin A palmitate *(liquid)*	as above	1,000,000	Edible oil plus anti-oxidants (butylated hydroxyanisole and butylated hydroxy-toluene).	Excellent	—
	P1.3 Vitamin A palmitate *(liquid)*	For oil-free prepara-tions	1,350,000 to 1,450,000	None	Excellent	—
	A1MO Vitamin A acetate *(liquid)*	In oil solutions and gelatin capsules	1,000,000	Edible oil only, for standardization	Excellent	
BEADLETS	**Type 250-S** Vitamin A palmitate *Dry Beadlets*	Water dispersible. For dry products which will be reconstituted with fluids, such as dry cereals, etc.	250,000	None	Excellent	Essentially 30-80 free-flowing, for uniform distribution in dry mixes.
	Type 500-S Vitamin D_2 *Dry Beadlets*		500,000	None	Excellent	
POWDERS	**Type 325A-32.5D** Vitamin A acetate & Vitamin D_2 *(dry)*	For tablets, capsules, vitamin-fortified powdered supplements	A—325,000 D_2—32,500	None	Excellent	40 and 60
	Type 325 Vitamin A *(dry)*		325,000	None	Excellent	40 and 60
	Type 500 *(dry)* Vitamin A acetate	For dry prepara-tions: tablets, capsules, vitamin-fortified powdered supplements	500,000	None	Excellent	40 and 60
	Type 500A-50D Vitamin A acetate & Vitamin D_2 *(dry)*		A—500,000 D_2—50,000	None	Excellent	40 and 60
SPECIAL	*For research and special production.* Type P1.8/BH (liquid) — vitamin A palmitate; 1.65 to 1.8 million U.S.P. units per gram. Type A2.9 (crystalline) — Vitamin A acetate; 2.8 to 2.9 million U.S.P. units per gram. No oil addition. Antioxidants in Type P1.8/BH: butylated hydroxyanisole and butylated hydroxytoluene. Both types need special handling.			**Packing** All Roche vitamin A is packaged to insure safety in transit and ease of handling in pharmaceutical operations.		

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Drugs, Fine Chemicals

Stove-weary housewives, stove-shy bachelors, and the long file of alert male shoppers who wheel their way through supermarkets bright and early every Saturday morning are undoubtedly familiar with the chemical that makes foods taste better, monosodium glutamate. For wherever their marketing lists take them—and watch the first two groups make a beeline for the frozen foods department—they're bound to find any number of products to which MSG has been added to enhance the natural flavor. Somewhere among the groceries will be "Accent," pure crystalline MSG, which they've had twelve years to get acquainted with, and elsewhere—particularly in the deep freeze—will be packages and cans on which the name of the chemical is prominently displayed: TV dinners, frozen meat pies, and an ever-growing assortment of specialty items like Lobster Newburg, once the reserve of the gourmet.

Price Trends

Advanced
None

Reduced
Mercury compounds, 75c. to $1.25 per lb.

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	May 23, 1959
60.24	60.36	60.36	60.62

For Current Prices see Page 10

In any of these products, the MSG content, if you can call it that, is minuscule. Two to four ounces of the chemical per one-hundred pounds of finished product is generally a sufficient ratio. Meat packers, for example, use about four ounces of MSG per one-hundred pounds of beef, and slightly less—about two ounces—for chicken and pork which are naturally sweeter.

Nonetheless, these little bits of MSG in a growing number of food products have gone a long way toward building up a rather fat market. Taking into account retail and institutional business, as well as sales to food processors, a trade source figures that current US consumption if running "in excess of 15 million pounds but this side of 20."

Furthermore, he estimates that usage of MSG in prepared foods will increase at an annual rate of six percent, based on projected population growth.

Extent to which the MSG market has grown in the past two years is indicated by various comments from trade people regarding industry capacity and the supply-demand balance. One source, for instance, believes that demand is currently exceeding production. Others disagree, going only so far as to say that output is well adjusted to buying interest. Practically everyone, however, feels that the days of surplus capacity are over.

One logically expects to find some disagreement among people in this business. For example, marketing problems peculiar to one MSG maker has forced the firm to cutback production. Then too, not all producers operate in all three segments of the market: retail, institutional and bulk.

Today, bulk sales are the biggest. These are the large drum quantities sold to food processors—canners and packagers of frozen foods, including soups, meats and vegetables. The fastest growing segment of the market, it is also, as one might suspect, the most competitive.

Second in volume are institutional sales. And in this area too, competition is getting mighty rough. This is because restaurants, schools, hospitals and the like, now familiar with MSG and its ability to make foods more palatable, are buying the chemical in greater quantities.

Retail, there's "Accent." The trade-named product of a major producer of MSG, it sells for about 90c. in the A&P stores in New York. Put on the shelf in 1949, it has remained there ever since, conclusive proof that the housewife is buying it in sufficient quantity to make it a profitable item for the "chains."

About two years ago, the Japanese were accused of dumping MSG on these shores but following an investigation the Treasury department dismissed the complaint. In the interim, it appears that the Japanese have become less and less a factor here, if ever they were. One trade member who should know commented last week: "We have not noticed much foreign competition."

The Japanese, of course, are old-hands in the MSG business. Production of the flavor-enhancing chemical began with them about fifty years ago with wheat flour as raw material. At present, there are said to be fifteen manufacturers, one of whom has just developed a new manufacturing process via acrylonitrile that is said to allow greater production at less cost.

MSG production in Japan, less than 1,000 tons per year in the late 1920's, rose to nearly 4,000 tons in 1937, and reached a pre-war peak in 1938. Temporarily suspended during the hostilities due to raw materials shortages, it was resumed with peace time. By 1957, output was 13,023 tons and a year later it was up to 13,514 tons.

Despite the large output, it is only in recent years that the Japanese have consumed more than half of their own supply. In 1953, for example, only 3,000 tons were used; however, this figure was up to 9,500 tons by 1958.

Currently, it's said, about 60 percent of the country's production is consumed domestically. But in the future, it's likely that Japan will consume progressively more. Sales to commercial users, as in the US, are increasing. Noted is the big surge in demand from makers of fish sausage.

Exports are also an important market for the Japanese. Forty percent of total output went abroad in 1938 as compared with 40 to 50 percent in postwar years until 1958 when exports started to decline.

Prior to World War II, China was a major customer. Post-war, when Japan started a drive to open up new markets, China became less important, and sizable quantities started to flow to the United States, the United Kingdom, Switzerland, West Germany, the Philippines, and Thailand.

MSG is still manufactured in Japan mainly by the "hydrochloride process." This involves the decomposition of protein which contains glutamic acid. Raw materials containing a high percentage of the acid are used. These include wheat flour, soya bean and corn. Wheat flour and soya bean account, respectively, for 60 percent and 40 percent of the total raw materials used, and in most cases, these are imported from Canada and the US.

Of course the hydrochloride or hydrolysis process may be outmoded by 1962. At that time, Japan's foremost manufacturer of food seasonings expects to have completed a new MSG facility, using acrylonitrile as raw material. The company figures that the switch to synthesis will permit higher productivity and cost reductions not possible with processing methods now used.

Proved successful in the pilot plant stage, the new route to MSG starts with the conversion of acrylonitrile into an aldehyde by reaction with oxygen in a solvent, using an as yet unnamed catalyst. The aldehyde is then reacted with methane and ammonia to produce a compound that can be hydrolysed to racemic glutamic acid, which in the last step of the process, is extracted to produce MSG.

The Japanese firm reportedly has applied for US patents on the process. Perhaps one day it will license a US maker. Or maybe, with its lower-cost product, it will decide to really tackle the slow but sure moving US market. At any rate, people in the business here have a few things to think about.

Ascorbic Acid—Imports of ascorbic acid reached the first-quarter high in March, with 46,185 pounds of the vitamin received here for immediate consumption. The entire quantity was valued at $145,565 and dutied at $15,278, according to information now available from the Census Bureau.

As in February, Denmark was the major supplier, shipping 32,187 pounds. This material was valued at $90,997 with the duty, as calculated by Customs, $9,553.

Japan was the only other supplier.

Aspirin—Aspirin, everybody's answer to simple aches and pains these many years, is turning out to be far more potent and significant a drug than previously imagined.

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tive in the treatment of rheumatic fever as drugs in the cortisone family which, in addition to being more expensive, sometimes have dangerous side effects.

Reported in "The New England Journal of Medicine," the study was conducted in eight hospitals, in four cities with fifty-seven children, selected at random, given either prednisone or aspirin. Treatment lasted twelve weeks, at which time cooperating physicians could find little difference in the degree of residual heart damage between the two groups. So with one exception, the doctors agreed that the risk of continuing long term treatment with prednisone was unwarranted.

Other doctors who had made similar investigations previously, however, indicated reportedly that they might reserve the cortisone drugs for rapid relief in early stages of rheumatic fever and rely on aspirin for long-term therapy.

In other rheumatic diseases, such as arthritis, which like rheumatic fever can be crippling as too many people already know, aspirin is being prescribed by physicians more and more, trade reports indicate.

Mercury Compounds—New and lower prices for several mercury compounds went into effect May 18. In addition to the initiator of the reductions, two other manufacturers, among those canvassed by OPD, have set up new schedules. Applicable to orders of 100 pounds or more, f.o.b. works (freight equalized with competitive shipping points), prices as set up by the initiator are:

Mercuric acetate; CP: $5.19 per pound.

Mercuric chloride (corrosive sublimate): USP granular and powder $3.78 per pound; USP crystals $4 03; ACS $6.44.

Mercuric cyanide, NF, $5.84 per pound.

Mercuric iodide red, NF; $6.97 per pound.

Mercuric oxide, red: technical $4.52 per pound; NF $4.72; ACS $6.44.

Mercuric oxide yellow: technical $435; NF $4.89; ACS $7.20.

Mercuric oxycyanide: $6.54 per pound.

White precipitate ammoniated, USP: $5.50 per pound.

Not all firms sell the full line as indicated above.

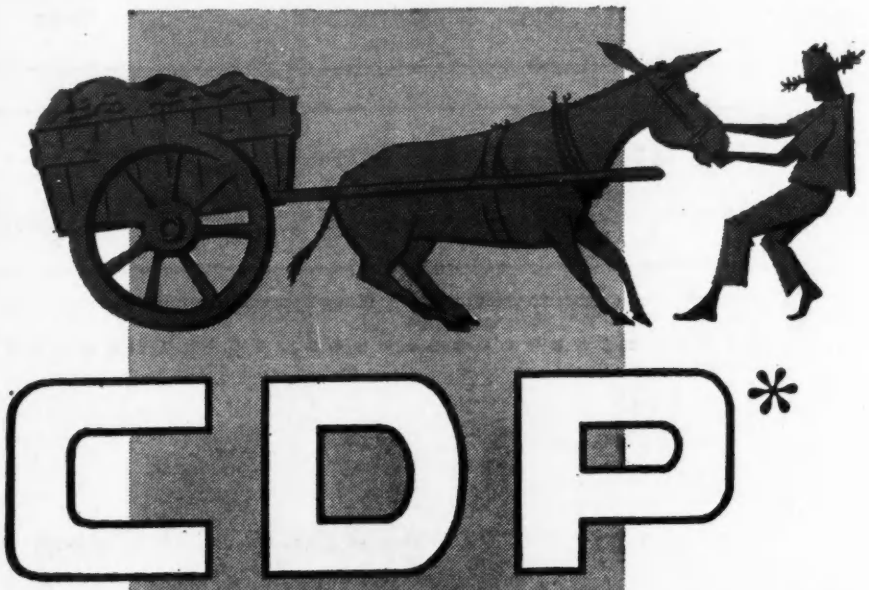
Reductions are said to reflect today's lower mercury metal prices.

Novobiocin—Body growth was increased considerably in premature infants given the antibiotic novobiocin, an Italian pediatrician has reported, according to an abstract published in the Journal of the American Medical Association.

The JAMA abstract (172; 499; January 30, 1960) said the drug was used as a growth factor in 38 premature babies over periods ranging from 5 to 13 days with substantial response in 33 infants. Daily weight gain was more than 30 grams in 14 cases and, in some infants, reached 60 to 70 grams.

Accompanying improved body growth were improvements in general health and condition of the skin, it was said.

The antibacterial effeciveness of novobiocin was first demonstrated by a US drug house which markets the drug as "Albamycin."



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The rate of obsolescence being what it is, profitability for many chemical specialties . . . particularly pharmaceuticals . . . depends upon the marketer's ability to get there *fast* and *first!*

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We provide valuable assistance in process engineering, vital in stepping up to commercial volume without costly delays. There is little or no time lag for plant construction or modification (and no plant investment, either!) Risks of product obsolescence are minimized.

When you anticipate the need for production assistance, call on Penick early. Your inquiry will be handled at the top executive level, in utmost confidence.

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Botanicals

Markets for imported botanicals are generally steady. In face of moderate to good interest for the major volume items, supplies are adequately available at established prices.

Collections of domestic botanicals, which got under way about a month ago, have not yet reached dealers in the New York area. In about two weeks, sources say, stuff should be coming in and at that time the outlook as to extent of gatherings this season will be clear.

Colchicum Seed — Scarce for many months earlier this year, colchicum seed is now available. Arrival of new crop saw prices fall from $1 to $1.25 a pound to a range of 75c. to 80c. a pound, which was also last week's quote.

Copaiba Balsam — A variety of prices are quoted, the lowest being 45c. a pound, the highest 80c. a pound. The broad range is thought to reflect quantity differences. One supplier simplifies matters by listing at 60c. to 65c., the quote currently carried by OPD.

Gum Locust Bean—The powdered material is currently selling at 35c. a pound, according to a report from a dealer here. This is about 3 cents lower than the price quoted at the beginning of the year. Interest is described as fair.

Gum Benzoin—Current listing is 32c. a pound, a penny lower than the quote carried by OPD at the start of the year. Routine interest is noted.

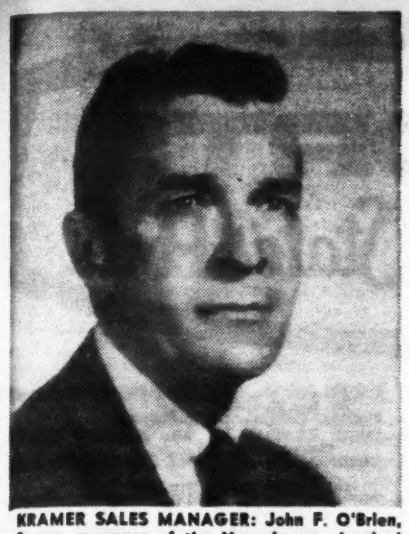
Gum Myrrh — Last week's listing was 65c. to 75c. a pound, 10 cents higher than that quoted a few months ago.

Bids Wanted

Acetylene, Oxygen and Argon gas, 690,000 cu. ft. including replacement of valves and hydrostatic testing of cylinders when required, definite quantity type contract for the needs of Letterkenny Ordnance Depot for fiscal year 1961. Bid IFB ORD 36-005-60-73, May 27. Letterkenny Ordnance Depot, Procurement Div., Chambersburg, Pa.

Insecticide, Dieldrin liquid, various quantities, Stk. No. GM6840-543-7236. Bid IFB N140-630-60B, May 26; DDT, various quantities, Stk. No. GF6840-246-6432. Bid IFB N140-652-60B, May 26. US Navy Purchasing Office, Third Ave. and 29th St., Brooklyn 32, N. Y.

Paint, for ships, anticorrosive, 35,000 kgs., antifouling (2-coating) 10,000 kgs., estimated cost, $25,000. Bids invited until May 30 by State Procurement Service, 50 Socratous Street, Athens, Greece. Bid copies are also available for review on loan from the Trade Development Division, Bureau of Foreign Commerce, US Department of Commerce, Washington 25, DC.



KRAMER SALES MANAGER: John F. O'Brien, former manager of the New Jersey chemical branch of McKesson & Robbins, Inc., who has been named sales manager of the fine and pharmaceutical chemical department of Kramer Chemical Company, Fairlawn, N.J.

Welch Is Advised

—*Continued from page 4*

his superiors for outside activities in 1950 and 1954.

Memoranda from the files of FDA, introduced at the hearings, however, showed that his superiors were under the impression that he was to receive nothing more than the usual honorarium for his services. At no time, according to FDA officials, did Dr. Welch disclose the size of the payments.

When the question of a possible conflict of interest involving Dr. Welch was first brought to public light in the *Saturday Review* in February, 1959, it led to a reexamination of the HEW rules on outside activities of its employees and issuance of a new policy statement last October sharply restricting these activities.

Dr. Welch was told to sever his connection with the publishing firms, which he did last January 1.

Earlier this month Dr. Welch filed an application for retirement from the government on grounds of disability growing out of a cardiac condition. His retirement was approved by the Civil Service Commission to become effective June 1.

Mr. Flemming said that because of the disclosures before the Kefauver committee he did not think Dr. Welch should be permitted to retire without action and directed FDA Commissioner George Larrick to call for his immediate resignation.

Spencer Licenses Five For New Plastic Process

Spencer Chemical Company has licensed five American firms to use the "Thermofusion" process for fabrication of large plastic products. The process is just now being introduced into the US by Spencer, which holds licensing rights for exploitation of it in this country.

Invented in Germany, "Thermofusion" permits production of large shapes by fusion of powdered thermoplastic in inexpensive molds, according to the Kansas City, Mo., company.

The five companies licensed are American Agile, Cleveland, Ohio; Ames Molded Plastics, a division of Amos-Thompson, Inc., Edinburg, Ind.; Loma Plastics, Fort Worth, Tex.; Rubbermaid, Wooster, Ohio, and Space Structures, Inc., Chanhassen, Minn.

Verley Unit Appoints

Edouard Beaux has become chief perfumer of Aromescence, Inc., a Paris, France subsidiary of Albert Verley & Co., Linden, N.J. He was formerly associated with Bourjois Chanel, Paris.

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AMMONIUM BICARBONATE—40 dms, Chemical Manufacturing Co, Liverpool
AMMONIUM CHLORIDE—200 bgs, Chemical Manufacturing Co, Liverpool
ANILINE DYES—66 dms, H Bruckmann & Lorbacher, Hamburg
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18 dms, Carbic Hoechst Corp, Rotterdam
57 dms, Geigy Chemical Corp, Bremerhaven
56 dms, Geigy Chemical Corp, Havre
6 dms, Heemsoth Kerner, Liverpool
64 dms, Rotterdam
ANNATTO SEED—128 bgs, Marcel Calvet, Vizagapatam
ANTIMONY—100 kgs, Watson Geach, Liverpool
ANTIMONY OXIDE—241 bgs, National Lead Co, Liverpool
ANTIMONY REGULUS—386 cs, Mercantile Metal & Ore Corp, Rijeka
ARABIC GUM—150 bgs, Brown Bros, Port Sudan
254 bgs, Port Sudan
ARSENIC, METALLIC—37 dms, Belmot Smelting & Refining Works, Gothenburg
50 dms, Kolon Trading Co, Gothenburg
ASBESTOS FIBER—800 bgs, N American Asbestos Corp, Lourenco Marques
3,200 bgs, N American Asbestos Corp, Durban
2,600 bgs, Johns Manville Corp, Durban
BARIUM CHLORATE—40 dms, James E Fox, Rotterdam
BEESWAX—125 bgs, Machado & Co, Ciudad Trujillo
50 bgs, Strohmeyer & Arpe, Puerto Plata
93 bgs, International Commodities Corp, Valparaiso
30 bgs, Morris Hess Co, Port Au Prince
60 bgs, Kane Import Corp, Puerto Barrios
52 bgs, Tampico
60 bgs, Puerto Barrios
BERGAMOT OIL—8 hf cs, Messina
BILE—3 dms, Wilson Lab, Buenaventura
BLANC FIXE—1,200 bgs, C J Osborn Co, Rotterdam
BONE BLACK—640 bgs, E J Lang, Casablanca
BONE CHARCOAL—200 bgs, Martin Baer & Co, Lisbon
n-TERT-BUTYLACRYLAMID — 70 dms, Natural Nydegger, Hamburg
CALCIUM CARBONATE—2,400 bgs, Pluess Stauffer, Antwerp
CALCIUM GLUCONATE—12 dms, Frank Samuel & Co, Rotterdam
CALCIUM LACTATE—50 kgs, Copenhagen
CANANGA OIL—11 dms, Magnus Mabee & Reynard, Penang
CANDELILLA WAX—88 bgs, M Argueso & Co, Tampico
63 bgs, Cornelius Wax Refining Corp, Tampico
63 bgs, Frank B Ross, Tampico
500 bgs, Tampico
CARAWAY OIL—2 dms, Rotterdam
CARAWAY SEED—200 bgs, Louis Furth, Rotterdam
200 bgs, R J Spitz, Rotterdam
100 bgs, Rotterdam
CARBON, DECOLORIZING—90 dms, American Cyanamid Co, Bremen
CARDAMOM—15 bgs, Lo Curto & Funk, Puerto Barrios
75 cs, Wm E Martin & Sons, Puerto Barrios
10 cs, Colombo
CARNAUBA WAX—112 bgs, Frank B Ross, Fortaleza
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66 bgs, M Argueso & Co, Fortaleza
112 bgs, Elton Trading Co, Fortaleza
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56 bgs, Strahl & Pitsch, Fortaleza
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67 bgs, Frank B Ross, Natal
188 bgs, Marine Midland Trust Co, Tutoia
125 bgs, Chase Manhattan Bank, Tutoia
250 bgs, Peoples Trust Co, Tutoia
125 bgs, Irving Trust Co, Tutoia
449 bgs, Colonial Trust Co, Tutoia
188 bgs, Bank of London & S A, Tutoia
739 bgs, National City Bank, Tutoia
CASEIN—300 bgs, Chase Manhattan Bank, Buenos Aires
4,100 bgs, F C Gerlach, Buenos Aires
143 bgs, F H Paul & Stein Bros, Oslo
1,000 bgs, Tupman Thurlow, Buenos Aires
40 bgs, First Spice Co, Rotterdam
10,800 bgs, A J Mills & Co, New Plymouth
446 bgs, A J Mills & Co, Auckland
1,000 bgs, Buenos Aires
932 bgs, Hamburg
CASHEW NUT SHELL LIQUID—100 tons, Mangalore
CASSIA—267 bls, Knickerbocker Mills, Rotterdam
641 bls, Magna Enterprises, Tandjong Priok
170 bls, Magna Enteprises, Djakarta
1,435 bls, Rotterdam
CASTOR OIL—303 tons, Spencer Kellogg, Rotterdam
680 tons, Baker Castor Oil Co, Bombay
281 tons, W R Grace & Co, Bombay
260 tons, Woodward & Dickerson, Salvador
221 tons, Wallace & Tiernan, Bombay
CASTOR OIL FATTY ACID—2 cs, Banta Corp, Rotterdam
CELERY SEED—174 bgs, Ludwig Mueller, Bombay
84 bgs, Kellys America Ltd, Bombay
CHAULMOOGRA OIL—10 dms, Morgan Guaranty Trust Co, Cochin
CHESTNUT EXTRACT—2,200 bgs, Chase Manhattan Bank, Genoa
CHLORINATED RUBBER—400 bgs, C M C Chemicals Inc, Liverpool
CHLOROQUINE DISPHOSPHATE—7 dms, Freedman & Slater, Antwerp
CINNAMON BARK OIL—1 cs, George Uhe Co, Galle
CINNAMONLEAF OIL—4 dms, Volkart Bros, Galle
CINNAMON QUILLS—40 bls, Curacao Trading Co, Colombo
50 bls, A G Dunn, Colombo
50 bls, Manufacturers Trust Co, Colombo
150 bls, Delano Corp of America, Colombo
CITRONELLA OIL—25 dms, L A Champon & Co, Keelung
36 dms, George Uhe Co, Keelung
CLAY, BALL—1,984 bgs, United Clay Mines Corp, Avonmouth
CLAY, CHINA—2,016 bgs, Anglo American Clays Corp, Avonmouth
CLOVE—100 bls, Chase Manhattan Bank, Zanzibar
280 bgs, Zanzibar
COBALT OXIDE—60 cks, Antwerp
COCA LEAVES—125 bls, Maywood Chemical Works, Salaverry
COCONUT OIL—279 tons, E F Drew & Co, Rotterdam
365 tons, American Trust Co, Cebu
COCONUT SHELLS—498 bgs, B Sirotta, Kingston
CODLIVERS—75 dms, Tec Chemical Corp, Bergen
CODLIVER OIL—75 dms, Arista Oil Products Corp, Reykjavik
75 cs, Dyson Shipping Co, Reykjavik
CODLIVERMEAL—400 bgs, Dyson Shipping Co, Reykjavik
COPAL GUM—14 bgs, S Winterbourne & Co, Singapore
COPPER, CYANIDE—66 dms, D Hauser, Hamburg
CORIANDER SEED—300 bgs, Ideal Trading Co, Casablanca
300 bgs, Louis Furth, Casablanca
250 bgs, Levy & Levis Co, Casablanca
CORN STARCH—4,410 bgs, Impex Agricultural Corp, Rijeka
1,120 bgs, Rotterdam
CREAM OF TARTAR—500 bgs, Leonhardt & Brush, Leghorn
CRESYLIC ACID—57 dms, Van Oppen & Co, Avonmouth
CUBE POWDER—405 bgs, Foreign Domestic Distributors, Callao
CUBE ROOT—344 bgs, Foreign Domestic Distributors, Callao
CUMIN SEED—500 bgs, Curacao Trading Co, Khorramshahr
182 bgs, C M Van Sillevoldt, Khorramshahr
171 bgs, Hismoco American Co, Bombay
1,150 bgs, Khorramshahr
CYANOCETAMINE—80 dms, Havre
DAMMAR GUM—30 bgs, Wm H Scheel, Singapore
198 bgs, S Winterbourne & Co, Singapore
DEGRAS—27 dms, American Cyanamid Co, Liverpool
25 dms, Robinson Wagner Co, Antwerp
97 dms, Silvey Shipping Co, Nagoya
93 dms, Lanaetex Products Inc, Nagoya
DEXTRIN—200 bgs, Stein Hall & Co, Rotterdam
300 bgs, Morgan Guaranty Trust Co, Rotterdam
DILL SEED—174 bgs, M J Golombeck, Bombay
200 bgs, Levy & Levis Co, Bombay
DINA ACID—9 dms, H Bruckmann & Lorbacher, Bremen
DYES, COALTAR—20 cs, Biddle Sawyer Corp, Hamburg
54 dms, H Bruckmann & Lorbacher, Hamburg
16 dms, Orlex Dyes & Chemical Corp, Hamburg
8 dms, Biddle Sawyer Corp, Hamburg
20 dms, Toms River Cincinnati Chemical Corp, Rotterdam
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EARTH COLORS—1,740 bgs, United Ultramarine & Chemical Co, Rotterdam
900 bgs, Naftone Inc, Bremen
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ELDER FLOWERS—31 bgs, Meer Corp, Rijeka
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124 bgs, Stein Hall & Co, Bombay
552 bgs, Block Drug Co, Bombay
KELPMEAL—217 bgs, Skod Co, Bergen
KOLA NUTS—300 bgs, Apapa
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LACTALBUMIN—2,240 bgs, A J Mills & Co, New Plymouth
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MELAMINE—200 bgs, Gothenburg
MENTHOL—22 dms, Chase Manhattan Bank, Marseille
100 cs, Kane Import Corp, Santos
MERCURIC OXIDE, YELLOW—77 dms, Lo Curto & Funk, Rijeka
5 cs, Lo Curto & Funk, Rijeka
MERCURY—20 flks, Leytes Metal & Chemical Corp, Vera Cruz
100 btls, National City Bank, Valparaiso
100 flks, Leghorn Trading Co, Leghorn
MINERAL COLORS—112 bgs, Revelli Chemicals Inc, Hamburg
MINERAL LUBRICATING OIL—200 dms, Asiatic Petroleum Corp, Rotterdam
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MOLASSES—477 tons, W R Grace & Co, Salaverry
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MUSTARD SEED—200 bgs, J Bieler, Copenhagen
MYROBALANS—1,230 bgs, First National Chicago, Vizagapatam
NAPHTHALENE—1,206 bgs, J N Forker, Liverpool
409 bgs, Witco Chemical Co, Liverpool
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556 bgs, Antwerp
NAPHTHOL—110 dms, Kaufman & Vinson, Genoa
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NUTMEG—810 bgs, Lo Curto & Funk, Rotterdam
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100 bgs, K Landes & Co, Port of Spain
100 bgs, Singapore
NUTMEG OIL—3 dms, Ufimindo International Corp, Penang
6 dms, Magnus Mabee & Reynard, Penang
NUX VOMICA—266 bgs, S B Penick & Co, Bombay

—*Continued on page 67*

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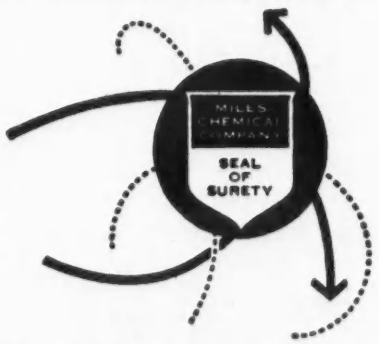

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Essential Oils, Aromatics

Little pricing activity was noted among the essential oils and aromatic chemicals last week. The only price change was a 5 cent per pound decline in apricot kernel. Citronella and lemongrass remained firm as did grapefruit, sandalwood and Bourbon geranium. Contrary to what most dealers had been hoping, geranium is not expected to weaken to any significant extent until at least November. Prices are near an all-time high and the current crop is reported to be so small that little relief is in sight.

Clove leaf oil is reported to be slightly easier at source, but no price reflection of this easement on spot is expected any time soon.

The peppers, both black and white, continue to weaken. Declining demand is said to be responsible.

Caraway seed are reported to be quite scarce.

The following figures on sales of cologne plus related figures on female population growth might be of some interest to scent raw material manufacturers.

Colognes and toilet waters now account for more than $60,000,000 annually at retail. Total fragrance products sales, including perfumes, top $110,000,000.

According to estimates, more than 75 percent of adult women use colognes or toilet waters in some form. Estimates indicate that by 1967, the dollar volume for colognes and toilet waters, at the retail level, in the United States will top $100,000,000.

There are approximately 60,000,000 adult females, 17 years of age or older, in the United States. There are another 3,000,000 girls between the ages of 15 and 17, plus several million younger teen-agers aged from 12 to 15, most of whom use cosmetics nowadays in some form or another.

There are some 90,000,000 females in the United States at the present time. The number of females in today's cologne market tops 65,000,000. Women who now use cologne, number some 45,000,000—according to a market research company which has estimated that 75 percent of adult women use cologne.

The United States Bureau of the Census reports that by 1967, the country will have more than 100,000,000 females. Some 72,000,000 will be 17 years of age or older, so that by 1967 the total cologne market potential might number a minimum of 80,000,000. If each of these purchase $1.66 worth of colognes, a figure put forth by market research workers, the retail level of sales will amount to some $100,000,000.

The cologne market is said to include diverse types of women—with little regard to social status, age or income.

The heaviest use of cologne, however, is by women in the under 35 age bracket. Eighty-five percent of these women use colognes. Those between the ages of 35 and 45 also go in heavily for cologne, with about 8 out of 10 women in this age group now numbered as active customers.

More than three-fourths of the women between 45 and 54 use colognes, research indicates. Older women use some, but past the age of 55, it seems that their purchases taper off rather drastically.

Price Trends

Advanced
None

Reduced
Apricot kernel, 5c. per lb.

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	May 22, 1959
145.50	145.50	146.72	145.58

For Current Prices see page 10

Essential Oils

Anise—The following information, about the political status of oil of anise, is reprinted from a report by the Essential Oil Association for the benefit of our readers who did not attend the annual convention of the Flavoring Extract Manufacturers Association held recently in Hershey, Pa.

"The embargo on Star Anise oil from China is still in effect and the oil cannot be imported into the United States. For a while Anise seed oils from other origins were admitted for entry, provided they were distilled from home-grown seeds of Pimpinella anisum and not from star anise or illicium verum grown in China.

"Despite control procedures with affidavits and certifications it became evident, however, that these countries exported more Anise oil than they could possibly have obtained from their limited crops of Pimpinella anisum.

"At the same time, these countries showed heavy imports of Star Anise seed and Star Anise oil which made it obvious that their exports of Anise seed oil were blends with oil from Chinese Star Anise seeds.

"The US government has reacted to these practices with tightening the certifications. Although applications can still be filed it is almost impossible to obtain import permits so that the legitimate importation has practically stopped. Oil of Anise can still be bought domestically, but at a prohibitive price.

"Whether such oil is a relic from pre-embargo stocks or whether it was imported with a permit or in some other way is an interesting question but of no importance because the quantities involved are negligible.

"Anise flavoring today is mainly done with anethole USP derived from pine oil. Although not as fine as anethole from Star Anise oil, the anethole from pine oil has been generally accepted as a full substitute."

Apricot Kernel—From its previous low, 55c. per pound, apricot kernel has declined further to 50c. per pound. Plentiful supply and weak demand have prompted the decline. Two weeks ago the price declined from 70c. per pound to 55c. per pound.

Bergamot—The natural Italian material, in cans, is selling for prices ranging between $11 and $12.50 per pound.

Bois de Rose—Brazilian material continues to range between $2.20 and $2.55 per pound while Peruvian material ranges between $1.85 and $2.30 per pound.

Clove Leaf—News from source is that clove leaf is a bit easier. The spot price remains at its previous level, $1.30 per pound.

Citronella—From source still comes the word that material is difficult to obtain. The wide variety of prices that source material is being offered for still prevail, according to reliable reports. Prices on spot remain at their previous levels, Ceylon, $1.25 per pound and Java-type $1 per pound.

Dillweed—Sales of domestic dillweed oil are said to be picking up now that the pickling industry is getting into full swing. Prices range between $3.25 and $3.75 per pound.

Dill has been growing in North America for many years, but only since 1930 has it been of commercial importance. Principal areas of cultivation are in Ohio, Idaho and Oregon.

Geranium—Bourbon material remains surprisingly firm, according to reports from source. Material, which is already near a record high, is expected to remain in tight supply until at least November.

The report stated that production is not heavy and that the scarcity of supplies will not be relieved until fall. Bourbon material is selling for $22 per pound. Algerian material is selling for $19 per pound.

Lemongrass—News from source is that there is "suddenly" material available. The previous report was that material would not be available at source until June, but apparently there is quite a bit ready for sale, now.

Spot prices remain at $2.20 per pound.

Orange—With warm weather approaching, dealers are anticipating a growth in the demand for the orange oils. Prices are as follows: California sweet distilled, 60c. per pound; Florida sweet distilled, 35c. per pound; California expressed, 70c per pound; Florida expressed, 45c. per pound, Messina, $3.25 per pound, and West Indian bitter, $2.50 per pound.

Spearmint—Weakening is anticipated in the overall market, but the OPD price

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Essential Oils

range remains at its previous level. The quotation is between $9 and $11.25 per pound.

Aromatic Chemicals

Vanillin—According to the Census Bureau, 25,809 pounds of vanillin were imported from abroad during March. The total value of this material was $92,734 and the duty paid on it was $18,380.

Broken down in terms of country of origin, the material from Canada amounted to 21,400 pounds. The value of this was $63,270 and the duty paid on it was $12,650. From Switzerland came 4,409 pounds valued at $29,464. The duty paid on it was $5,730.

Seeds and Spices

Caraway—Prices advanced last week. Reason: Prices are higher in Holland due to lack of rain which reduced the size of the crop. There is reported to be little carryover of old crop material.

Cassia—All types of Batavia and Korintje material is available at the lowest levels thus far in 1960, according to reports from dealers.

Coriander—Old crop material at source is reported to be sold out and prices are advancing accordingly.

Ginger—High prices for African material have forced buyers to look to Jamaica for ginger. Nigerian peeled and split is reported to be cheap.

Pepper—All prices declined with limited consumer interest held responsible. Malabar black declined from 62c. per pound to 58c. per pound; Lampong black declined from 62c. per pound to 58c. per pound, and Muntok white declined from 83c. per pound to 78c. per pound.

Sesame—The market is reported to be inactive.

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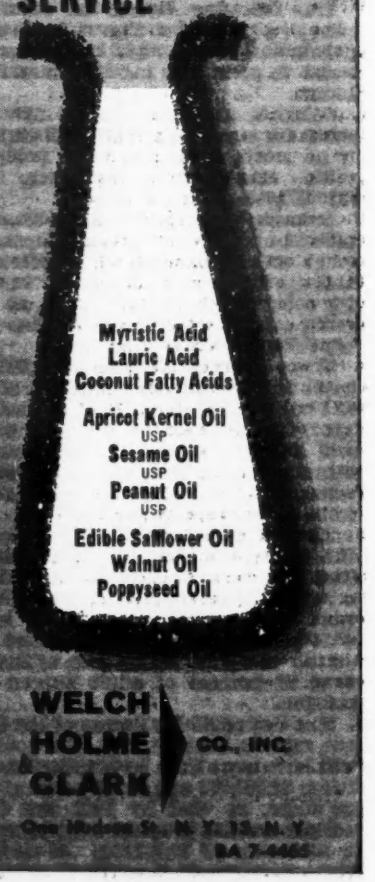

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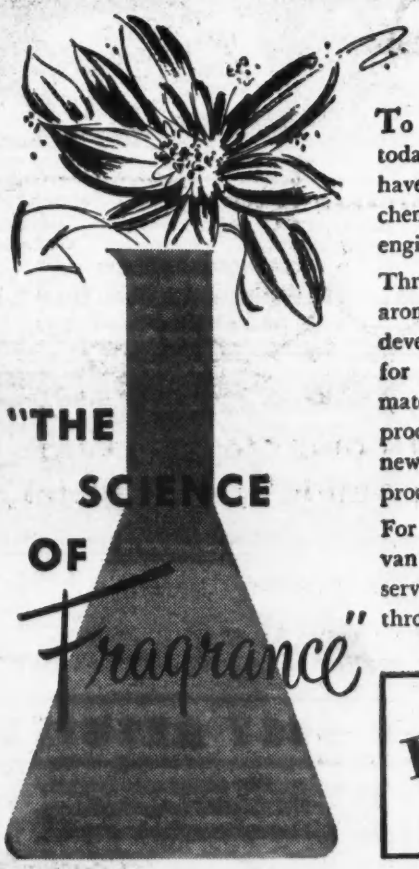

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Coatings Materials

One small price increase of one cent per pound in copal gums is noted in the generally firm price situation of the coatings market this week. Firming tendencies are reported in pigments, synthetic resins and lacquer materials. In the prime pigments only aluminum paste and powder seem to have hit a snag in consumer demand. Dry colors, and the rest of the pigments are said to be moving at normal Spring-time rates.

In synthetic resins, the alkyds are reported to picking up in demand after a few dull weeks of activity. The maleics continue to be in tight supply with the outlook in the third quarter for a rapid loosening in the supply situation. Some sources feel that with the scheduled completion of several new maleic plants in the Fall, the supply position of maleic will reverse itself rapidly, if at all. Sources stress however, that scheduled completion and actual production are often separated by considerable time, sweat and tears.

The Department of Agriculture has published its annual naval stores report for the crop year April 1, 1959, to March 31, 1960. Highlights of the report include, sales of all CCC stocks, a sharp increase in exports, a high level of domestic consumption, and a tight supply position particularly at the end of the season. Disappearance of rosin during the crop year, is reported to be considerably in excess of production, and rosin stocks on hand March 31, 1959, at 641,000 drums, were down at 243,550 drums on March 31, 1960. This was a decrease of 397,450 drums or 62 percent.

The report states that in contrast with wood turpentine, gum turpentine continued in relatively limited supply, CCC holdings on March 31 of this year, were down to 4,420 barrels compared with 11,690 a year earlier. Compared with the previous crop year, combined production of all turpentine was slightly higher but exports and domestic disappearance were down.

The casein market was active but steady last week. A report that one leading Argentine casein producer had withdrawn offers of his material in an effort to boost prices proved to be somewhat premature. The withdrawal lasted one day with one report to the effect that the listing for the Argentine gained ⅛ cent per pound in the maneuver.

Price Trends

Advanced
Copal gum No. 3, 1c. per lb.

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	May 22, 1959
103.14	103.13	103.03	103.05

For Current Prices see Page 10

Prime Pigments

Aluminum Paste and Powder—Demand for the paste and powder has hit its lowest level in months according to one leading producer. Over the first quarter of the year, demand was reported to be very well sustained. The sudden drop in demand has producers somewhat puzzled, since they are unable to put their finger on the exact cause of the decrease. Nonetheless, they anticipate some increase in market activity over the next few months.

Dry Colors—Demand continues to be fairly well sustained with supplies adequate. No price changes have been reported and prices are firm at their old listings.

Lead Pigments—Market for the lead pigments continues to be at routine levels, no changes have been noted in respect to supplies or prices.

Zinc Pigments—Production of lead-free and leaded grades of zinc oxide in March is reported by the Bureau of Mines to have amounted to 14,000 tons. This represents a 5 percent increase over February's output, but is reportedly 12 percent below the production estimated for March of last year.

Synthetic Resins

Alkyds—Demand from industrial quarters is reported picking up over the last few weeks but sources caution it is too early to talk about a trend at this time. Outside painting activities has not been up to par due to the late starting spring and this is felt to be the reason for the less than normal demand for the alkyds. The price situation is said to be firming due to the tight supply of the phthalates of which it is a function.

Maleics—Supplies continue to be tight. Some producers look for a sudden loosening in the supplies of the maleics during the fall. At that time, it is felt, the many plants that are scheduled to go on stream, will result in new sources of supplies.

With the present tightness in the maleics, one producer reports that the demand for itaconic acid as a maleic-substitute has been unusually good. Since the pickup in demand seems to be linked with the shortage in maleics, the producer does not anticipate that the demand for itaconic acid will be sustained over the latter part of the year.

Lacquer Materials

Cellulose Acetate/Butyrate—Demand is moving at a fair rate particularly from sheeting, film, and other lacquer products. Supplies are reported to be adequate for all calls. Prices hold at their longstanding listings.

Acetyltributyl Citrate—Demand is said to be very good especially from the food packaging line. In the last few weeks the FDA has given its approval for the use of acetyltributyl citrate in food packaging. A leading producer states that the citrate is being used in foil papers and as a liner for bottle caps.

Tributyl Citrate—This citrate is finding increased use as a cement in the food packaging line. Demand is reported to be well sustained, with prices unchanged.

Nitrocellulose—Listings are unchanged, prices are reported to be firm. Demand is reported to be well sustained particularly in the furniture industry where nitrocelluse finds use as a coating material.

Plasticizers—The market is described as routine at this time. Shipments are being met and prices are firm at their old listings. DOP is reported to be somewhat tight in its supply position, a condition that has existed for some time now. In general, business is said to be normal, with the possibility of some slack appearing during the summer months.

Miscellaneous

Casein—Argentine casein market is reported to be somewhat active, with prices about at the same levels as in previous weeks. New Zealand casein is said to be moving in the range of 24¼c. to 25c. per pound. Market is said to be stable, supplies are adequate.

Offers of Australian casein are being made but according to one source the brands are not from the usual, well-known producers. Prices are reported to be around 22c. per pound, spot. Some Australian material is being offered for August-September shipment, with arrival here sometime in October. Prices for those shipments are reported to be in the neighborhood of 21¼c. per pound.

The French are continuing to offer French casein to domestic importers. The price is reported to be about 20¼c. per pound, but very little interest is being shown. Some sources are of the opinion that the French will have some difficulty overcoming sales resistance to their product in this country. Quality of the French material is still to be demonstrated and the price is presently higher than its nearest competitor, the Argentines.

The casein duty bill is still at its week-old status. As of Friday, no progress has been reported. As it stands now, the newly revised bill provides for a 2¾c. per pound duty on edible casein. The inedible, or industrial casein, is to enter this country duty-free. Trade sources are hopeful that this unpleasant wrinkle in the duty bill will be ironed out before it reaches the President's desk for signing into law.

Glue—The Bureau of Census reports the production of glue totaled 10,365,000 pounds in March. This compares to the 9,454,000 pounds produced in the previous month. A year ago production was set at 8,599,000 pounds.

Shipments of glue in March were 8,770,000 and 8,327,000 pounds in February.

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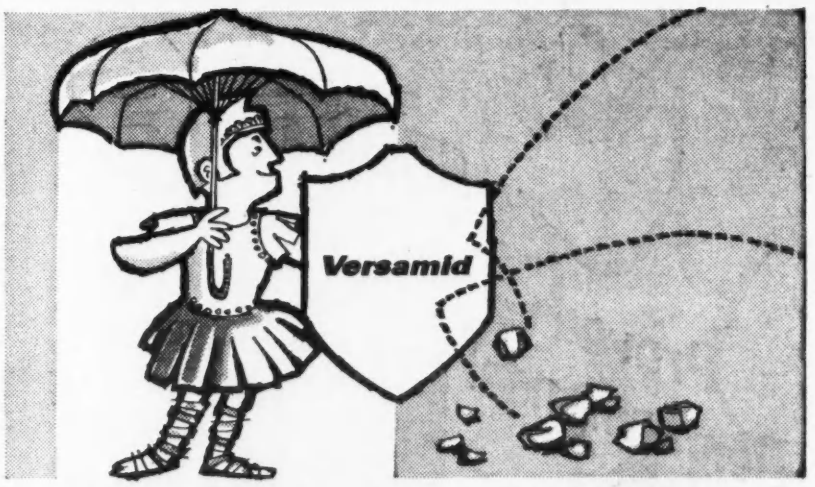

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Coatings Materials

Shipments of glue were higher a year ago when the Bureau reported 9,644,000 pounds shipped in March, 1959.

Stocks at the end of March were reported by the Bureau at 33,988,000 pounds, an increase from the 32,393,000 pounds stocked at the end of February. A year ago stocks of glue were reported at 34,625,000 pounds.

The Bureau reports that production of hide glue was 5,368,000 pounds in March and 4,657,000 pounds in February. Bone glue production was placed at 4,997,000 pounds in March and 4,797,000 pounds in February.

Naval Stores

In its annual naval stores report, USDA reports that gum turpentine production during the 1959-1960 season, at 107,400 barrels, was about 11 percent less than for the previous crop year and set a record low level for the eighth successive year. Production data, according to the report, reflect still output during the season without adjustments for carryover of crude gum.

Steamed distilled output of 175,950 barrels was 2 percent higher than for the 1958-59 crop year. Although the increase was comparatively small, it was the first upturn since 1954.

Total turpentine production during the crop year, at 636,750 barrels, was 5 percent higher than the previous year, USDA reports. Gum turpentine accounted for 17 percent of the total; steam distilled 28 percent; and sulfate 55 percent.

Gum rosin production during the crop year was reported to be 334,110 drums, down 10 percent from the year earlier. While central still output from May through was below production for the same months of 1958, it was down the sharpest in August, September, and October. From December through the remainder of the year, production by months was slightly higher than that for the same months in the previous year.

Pine Gum—The average price paid per standard barrel of pine gum for the week ended May 7 was $35.70. For the previous week the price was $35.40 while the same week a year ago the price was $25.50.

The volume of gum deliveries for the week was 12,200 barrels. A week ago the volume was 11,040 barrels and for the same week exactly a year ago the volume of deliveries was 14,391.

The average content per barrel of turpentine was 9.97 pounds and content per barrel of rosin gum was 296.5 pounds.

Gum grading was as follows: WW, 4; WG, 32; N, 33; M, 25; and K and below, 5.

Rosin, Gum

(USDA, per 100 lbs.)

	Fri. May 13	Mon. May 16	Tues. May 17	Wed. May 18	Thurs. May 19
Drums—					
H	$12.16	...	...	...	...
M	12.35	...	...	...	...
N	12.31	...	...	...	...
WW	13.17	...	...	...	...
Bags—					
K	12.00	...	...	...	...
WG	12.60	...	...	...	...

Tankcars (for week ended May 20)—
K or better, $11.50

Sales, USDA
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New York
(Per 100 lbs., c.l., Friday)
K, M, $13.50; N, $13.85; WG, $14; WW, $14.50

Turpentine, Gum

(USDA, per gal., 7.2 lbs.)

Price	.50$^{9}/_{10}$	.49	...	.49$^{1}/_{10}$	.49
Sales	14,000	8,000	...	6,000	6,000

* Drums equivalent. $ Average price.

Natural Resins

Gums—A price increase was announced last week for Copal gum No. 3. The lower range will be 1c. per pound higher. This makes the new price for Copal No. 3 18c. to 20c. per pound. The old price had been 17c. to 20c. per pound.

Market conditions for the gums are reported to be spotty, with prices for all other listings holding firm.

Shellac—Sources report that market conditions are excellent with prices firm. A large Indian crop has been reported to have adversely affected by weather conditions and as a result sources here feel that no change will result in the primarly market nor is it expected to affect existing secondary market conditions.

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2. Practically no residual odor.

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OTHER USES

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Oils, Fats and Waxes

The collapse of the summit conference in Paris last week brought European short covering in copra advancing that market, which was reflected in crude coconut oil. Coconut oil was advanced ⅛ cent to ¼ cent per pound. Offers were limited but buying interest lagged. Edible oils were firmer and fractionally higher. Export inquiry for soybean oil was active. This strengthened the market and prices advanced about ¼ cent per pound. Cottonseed oil also was stronger, also up ¼ cent. Corn oil was irregular and closed unchanged. Peanut oil was stronger with sales at ¼ cent higher. Olive oil demand on spot was confined to actual needs. Stocks on spot were steady, reflecting the strength of replacements from primary sources.

Tallow and greases were slow, with demand confined to actual needs. Active export business a week ago subsided and light trading was restricted to domestic needs. While business was spotty, the market held steady at prevailing quotations.

An active inquiry was noted for tung oil at slightly lower bids which were turned down. This market was firm as stocks were in light supply on spot and for shipment from the Argentine. Linseed oil remained unchanged and steady, despite lower flaxseed. Oiticica was in light demand and available at unchanged prices. Brazilian castor oil continued firm at the recent advance of ¼ cent per pound. Crude menhaden oil was quiet. Menhaden fishing in the Gulf last week was affected by stormy weather. Refined fish oils were unchanged and steady.

Demands for oilmeals were limited to actual needs. Linseed meal was firmer and 50 cents per ton higher. Cottonseed meal was scarcer and advanced $1 per ton for small lots. Peanut meal was in small supply and steady. Soybean meal was quiet and unchanged.

Price Trends

Advanced

Coconut oil, crude, ¼c. to ½c. per lb.
Copra, $2.50 per ton.
Cottonseed meal, 1c. per ton.
Cottonseed oil, crude, ¼c. per lb.
Refd., ¼c. per lb.
Linseed meal, 50c. per ton.
Peanut oil, crude, ¼c. per lb.
Refd., ¼c. per lb.
Cottonseed meal, $1 per ton.
Soybean oil, crude, ¼c. per lb.
Refd., ¼c. per lb.

Reduced

Corn oil foots, 95%, ¼c. per lb.
Cottonseed oil foots, 95%, ¼c. per lb.

Comparative Price Indexes

(100—1949 average)

Last week	Prev. week	Last month	May 22, 1959
112.01	111.83	113.57	111.88

For Current Prices see Page 10

Vegetable Oils

Castor—Market was steady at the recent advance in imported oil. No. 1 Brazilian was maintained at 18¼c. per pound, tankcars, New York, prompt delivery. Domestic oil was unchanged for all grades. Business was confined to nearby delivery.

Imports of castor beans and castor oil at New York and Philadelphia last week were as follows:

	Pounds	
	Castor Beans	Castor Oil
Last week	....	3,490,000
Previous week	....	300,000
Corresponding week, 1959	....	2,700,000
Total this year	1,934,700	36,600,000
Corresponding period, 1959	11,830,900	36,110,000

Coconut—Crude oil shipments were firmer because of the stronger copra market. European shorts covered, firming the market due to the collapse of the summit conference. Crude oil was raised to 14¾c. per pound, tankcars, f.o.b. Pacific coast, May shipment; 14⅝c. for June and 14½c. for July delivery. The New York market also was stronger and advanced to 16⅜c., tankcars, f.o.b. for prompt and later delivery.

Corn—Prices were irregular and steady. Crude was sold at 12⅞c. per pound, tankcars, f.o.b. mills, prompt delivery. Refined oil was unchanged at 16.60c., tankcars, New York basis.

Cottonseed—Futures remained steady with crude oil and allied markets last week on the New York Produce Exchange. Market backed and filled scoring light gains for the period. All deliveries, except July reached new highs. Trading was mixed, and moderate. May tenders increased 14 contracts bringing the total to 163 to date. Cash oil was firm with crude oil. Refined salad was advanced to 13⅝c. per pound, tankcars, New York, prompt delivery.

Crushers' reports have overstated the production of crude cottonseed oil by 46.5 million pounds over the past 7 months. This error was detected by the Census Bureau and was confirmed at the source. Revised figures placed crude cotton oil production at 1,479.3 million pounds, September through March inclusive compared with published total of 1,525.9 million pounds. The adjustment is confined to the figures for Louisiana, Texas, North Carolina, and the United States. Data for production of cake and meal, hulls, linters, and the quantity of cottonseed crushed were overstated proportionately. Revisions did not affect the data on stocks nor the market.

Progress of new cotton crop was reported fair to good throughout the belt. Supply of old crop crude oil was low and market was stronger. Sales in the Valley were reported at 10½c. per pound, tankcars, f.o.b. mills, Valley. Business also took place at the same price in Georgia and Carolina area. Lubbock and Waco were nominal at 10c.

Cottonseed Oil Futures

Sales and prices of prime summer yellow cottonseed oil futures in tankcars (60,000 pounds) on the N. Y. Produce Exchange for the week ended Friday, May 20, follow:

	Sales	High	Low	Close
		Cents per Pound		
July	397	12.29	12.17	12.26@12.27
Sept.	173	12.27	12.13	12.24S
Oct.	103	11.99	11.90	11.97S
Dec.	39	11.95	11.88	11.94@11.95
March	14	12.05	11.97	11.98@12.00

Total sales and switches, 726 contracts.

Linseed—Steady improvement was noted in oil withdrawals against existing contracts. Demand was spotty for nearby needs. Prices were unchanged at 13.20c. per pound, tankcars, Minneapolis, May-July delivery; 13.40c., August-September, same basis and 14.31c., f.o.b. New York.

Oiticica—Trading was limited. Deliveries against contracts continued to move in good volume. Tankcars were unchanged at 14c. per pound, New York, for prompt delivery. Drums were held at 16c. to 16½c. per pound, spot, according to quantity.

Olive—Trading was quiet, but market was steady, reflecting the strength of primary sources. Spanish oil, which is the cheapest for shipment, was firmly held at $57 per 100 kilos, drums, f.o.b. ports, as a result of steady buying for European account. Stocks on the spot were unchanged and steady at $2.40 to $2.50 per gallon, drums, duty paid, as to quantity.

Peanut—Production continued limited to about 20 tankcars weekly, which were insufficient to cover limited demand. Crude was scarce and sold at 15¾c. per pound, tankcars, f.o.b. mills with sellers holding for ¼c. more. Refined oil was quiet and nominal at 19c. per pound, tankcars, New York basis.

Soybean—Increased export inquiry for about 25,000 tons for shipment to Spain, United Arab Republic, Poland and Pakistan. Crude was raised to 8⅜c. per pound, tankcars, Decatur, unrestricted, May-July shipment. This strengthened refined grades and salad oil was higher at 10.45c., tankcars, New York basis.

Tung—This market continued firm. Offers were light and closely held at 22¼c. per pound, tankcars, New York, prompt delivery. Lower bids were turned down. Drums were maintained at 24c. to 24½c. per pound, spot, depending upon quantity. Domestic oil was quoted at 22c., tankcars, f.o.b. mills, prompt shipment.

CCC last week sold 5 tankcars of tung oil at 15.15c. per pound, f.o.b. Marrero, La., for export, the same price of the previous sale.

Miscellaneous

Cocoa Butter—Trading was reported light. Prices were unchanged, ranging from 56c. to 61c. per pound, spot, as to quantity.

Copra—Shipments were stronger as a

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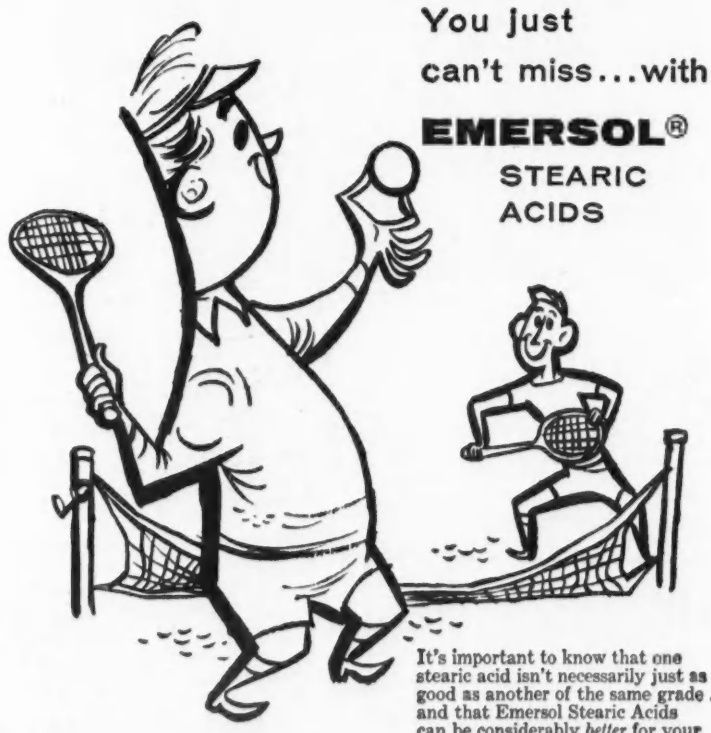

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Oils, Fats and Waxes

result of European short covering. The breakdown of the summit conference brought shorts into the market and stiffened quotations. Sales were reported at $195 per ton, c.i.f. Pacific coast, June delivery.

Fats and Greases

Greases—This market was unchanged and fairly steady. Trading was limited to prompt needs. Choice white was quoted at 6⅞c. per pound, tankcars delivered with bids ⅛c. less. Yellow grease ranged from 5½c. to 5⅝c., same basis, with sales reported at this level.

Lard—Market was irregular, closing slightly lower. Cash lard was quoted at 9⅝c. per pound, drums, Chicago.

Tallow—Export business which was the mainstay of the market, slackened last week. Domestic business also was slow and confined to actual needs. Prices were without change and well held. Bleachable fancy was quoted at 6c. per pound, tankcars, delivered; prime, 5⅞c.; special, 5¾c.; No. 1, 5½c. to 5⅝c. and guaranteed fancy, 6⅜c., same basis. Export inquiry was quiet. Guaranteed fancy was quoted at 6½c. per pound, bulk, f.o.b. and 7½c., drums, f.a.s.

Fish Oils

Cod — Firm tone prevailed because of improved buying interest and limited stocks available for shipment from Newfoundland. Prompt shipment was advanced to 7⅜c. per pound, bulk, Gloucester, Mass. Stocks on spot ranged from 8¼c. to 8½c. per pound, drums, as to quantity.

Menhaden—Trading was confined to actual needs. Crude was unchanged at 6¾c. per pound, tankcars, works. Export interest was reported slow. Fishing has started in the Gulf, with catch reported light. Refined oil was quiet and steady. Light pressed oil was unchanged at 10c. per pound, tankcars, New York basis.

Cake and Meal

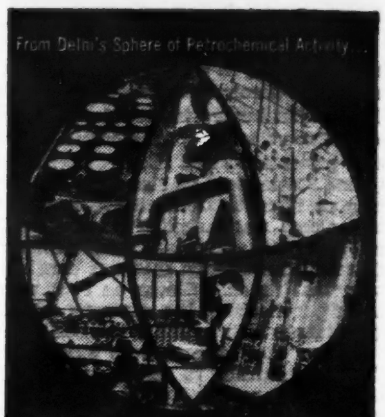
Cottonseed Meal—Stocks of old crop meal are getting low. Prices were firmer and raised $1 per ton for small lots. Meal, 41 percent, was quoted at $56.50 per ton, sacked, Memphis; $57, Alabama and $70, Georgia. Carolina meal was not offered.

Waxes, Vegetable

While consumer demand for carnauba grades continued light and spotty, a steady tone prevailed on spot, reflecting the strength of the Brazilian market. Prices locally were without change. No. 3 Ceara crude was quoted at 73c. to 74c. per pound, spot, as to quantity and Parnahyba, was 1c. more. No. 1 yellow Ceara was unchanged at $1.04 to $1.06 per pound, spot and Parnahyba ranged from $1.05 to $1.07, as to quantity.

Supply situation in crude candelilla has improved slightly, but stocks on spot were still scarce. Small lots were moved from 65c. to 68c. per pound, as to seller, while sales for early arrival were reported at 2c. less. Imports at New York last week totaled 714 bags, the bulk of which were delivered former orders.

Crude beeswax was quiet, but the market was steady because of the firmness of primary markets. Refined grades were in fair demand at unchanged prices.



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Sp. Gr. 15.56/15.56°C	0.871
API Gravity	31.1
Weight, Lbs/Gal	7.246
Color	30+ Saybolt
Acid Wash Color	Less than No. 1 Standard
Acidity	No free acid
Sulfur Compounds	No H_2S or SO_2 or Thiophene
K. B. No. (Toluene-105)	101
Distillation	
First Drop	138.0°C 280°F
Dry Point	141.0°C 286°F
Flash TCC	82°F

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Petroleum Derivatives

Domestic market conditions are generally unchanged. Export activity in aromatic solvents is reported to be increasing. Benzene for overseas shipment is at a premium due to domestic shortages and is commanding high prices from customers abroad. Toluene exports are firming with producers indicating higher prices will prevail for foreign buyers and a possibility of a decrease in supply for home consumption. Xylene sales are well maintained due to good Spring auto sales with estimates of continued high rate of production. Aliphatic solvents show a steady pace with promise of increased demand as vegetable oil crushing, painting and dry cleaning enter a seasonal peak.

June oil production equivalent to eight days flow was ordered last week by the Texas Railroad Commission for that state's regulated wells.

The eight day quota is the same as that of May. Since June has one less day, however, the average calendar day production will be 2,642,516 barrels, an increase of 47,108 barrels per day over May.

During the commission meeting Chairman Thompson questioned several purchasers in an effort to determine if imports and oil from other states were being used to fill up the gap when Texas production is ordered cut. The Chairman's inquiries met with negative or non-committal replies.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	May 22, 1959
104.34	104.34	104.34	104.42

For Current Prices see Page 10

Aromatic Solvents

Benzene—Supply is still short. Trade comments last week reaffirmed the opinion that the present situation is likely to continue for some time.

The domestic market price has held steady on a contract basis of 34c. a gallon since January despite the shortage. Export prices, however, have shown wide fluctuation. Reports circulating last week indicated exporters were paying in the vicinity of 45c. a gallon when material was available. This is in contrast to the 40c. spot-basis price which has been paid in the domestic market upon occasion. Heavy European demand and the willingness of continental buyers to pay premium prices is the reason for the scramble for export material.

Imports of benzene in March of this year totaled 4,562,693 gallons. The entire amount originated in the USSR and was delivered to Gulf ports. In the same month last year Czechoslovakian and Rumanian imports into the US totaled 2,110,198 gallons.

Exports of benzene in March totaled 823,910 gallons. Canada and Italy were the major recipients of this chemical.

Toluene—Calls for this solvent are well sustained throughout the nation. In fact, tight supply may be experienced to some degree in the near future. The reason for this is that producers have been channeling more and more toluene into the export market. Heavy demand in this area is driving up the price which foreign customers are asked to pay.

The latest figures, compiled for March, show US exports to all countries totaling 37,794,729 pounds. Imports of this solvent amounted to 1,787,733 pounds, all originating in Canada.

The declining market for aviation gas received what may be yet another blow last week. Preliminary discussions were announced between two US firms and the British manufacturer of a twin-jet passenger plane. Although no commitments have been made it was indicated that a number of US airlines would be interested in studying the use of the aircraft on short to medium-range flights. Earlier this year a mutual cooperative agreement was reached between a US aircraft firm and France's leading plane producer. The trend toward replacing piston engined craft with jets having short to medium-range capabilities is thus evident and indicative of the eventual decrease in demand for toluene for aviation gas purpose.

Xylene—This solvent is moving well throughout the country. Increased export activity and continued high rate of auto production has buoyed up the market.

Xylene price in Cleveland is still subject to controversy. Some trade sources have pointed out the difficulty of maintaining the present schedule in view of the fact that none of the competing companies have water terminals at the lake city and must ship xylene from other points overland. Thus, observers feel the ability of the competing companies to sustain a high flow of solvent into Cleveland on other than a spot-bulk basis is doubtful.

Imports for March totaled 1,442,331 lbs. Canada was the country of origin. The solvent was delivered to Detroit and various points along the St. Lawrence River. In the same month last year Canada and West Germany delivered 557,507 lbs. to the US.

Aliphatic Solvents

Stoddard Solvent—This particular solvent accounts for sixty percent of all cleaning fluids employed by the dry cleaning industry. Consequently demand is brisk as summer weather triggers one of the industry's peak volume periods. At the present time Stoddard solvent in tanks on the east coast, New York and New Jersey is priced at 18c. a gallon. This price has held at this level since 1958.

VM&P Naphtha—The market for this product continues in a routine manner with no significant activity to report. Demand is undiminished and supplies are on hand to meet calls.

Price holds at 19c. a gallon as it has without interruption since 1958.

LPG's

Butane—92,183,000 gallons were reported produced in the period April 16-30. This is an increase from the 86,957,000 gallons for the same two week period last year. Stocks on April 30 stood at 240,782,000 gallons, an increase of 55,427 gallons from the same date in 1959.

Iso-butane—Production for the period April 16-30 was 26,582,000 gallons, up 37,000 gallons from the same period last year. Stocks on April 30 were 46,392,000 gallons compared to 68,469,000 gallons on the same date in 1959.

Propane—The last two weeks in April showed production totaling 182,041,000 gallons as against 157,925,000 gallons during the same period last year. Stocks as of April 30 were 323,688,000 gallons, a decrease from 342,539,000 gallons reported on the same date last year.

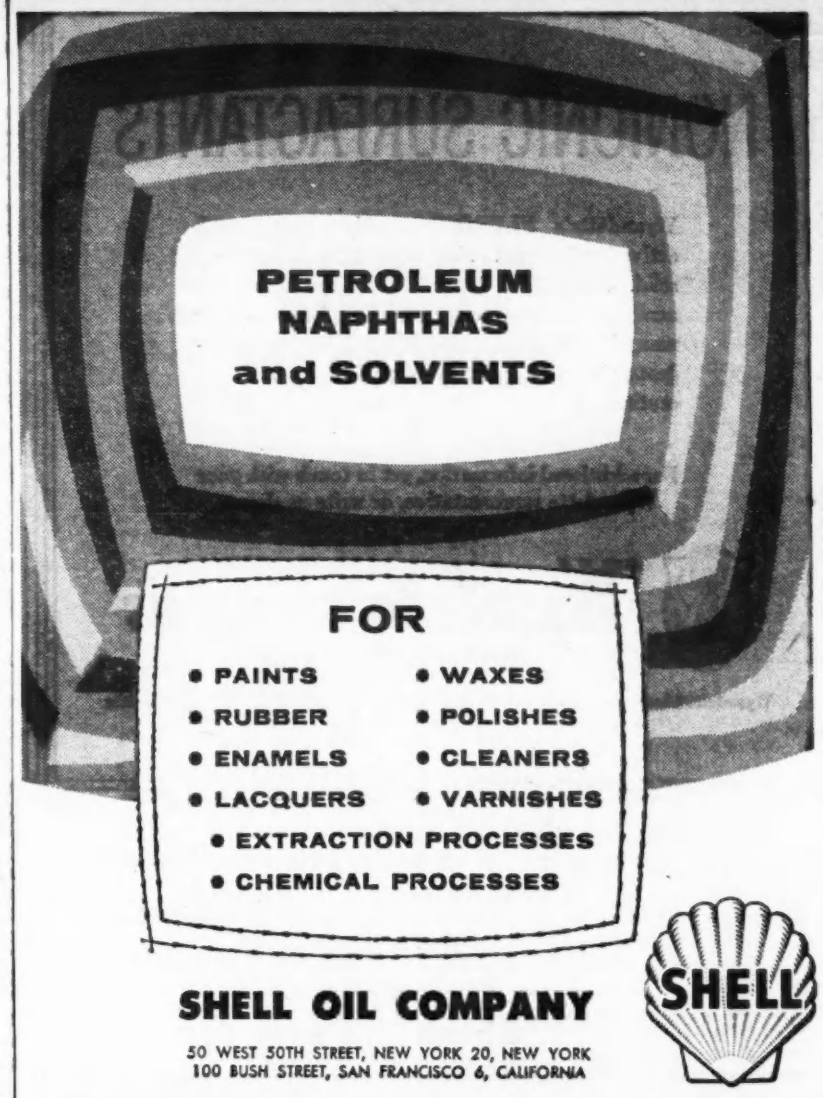
Statistics are from the American Petroleum Institute.

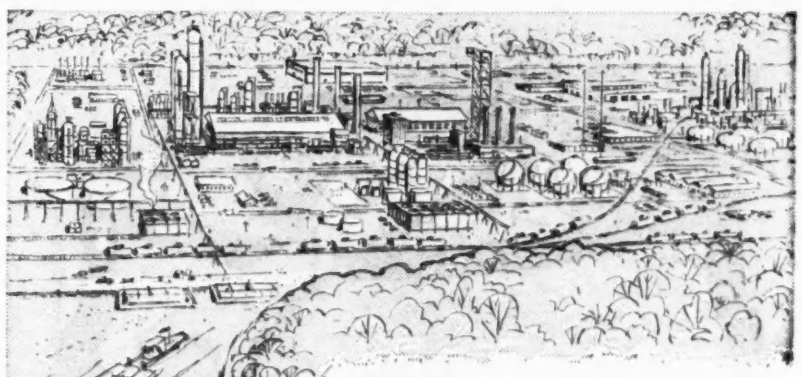
Miscellaneous

Crude Forecast—The amount of domestic crude oil that will be consumed or exported in June 1960 is estimated by the Bureau of Mines at 6,870,000 barrels daily, compared with 6,620,000 barrels forecast for May 1960. The forecast contains no recommendations as to desirable rates of crude production or of changes in crude stocks. It is an estimate of probable consumption based on actual industry conditions and policies in effect; adjustment for seasonal changes in refined stocks, allowances for the current rate of imports of foreign crude oil and products; and the production of natural gas liquids. The forecast includes estimates of a total gasoline demand of 4,580,000 barrels daily in June, a gasoline yield of 46.0 percent, and total crude runs of 7,800,000 barrels daily.

Crude Oil Stocks

Stocks of domestic and foreign crude petroleum at the close of the week ended May 7, totaled 260,525,000 barrels according to data reported by the Bureau of Mines. Compared with the total of 262,694,000 barrels the preceding week, this represents a decrease of 2,169,000 barrels comprising a decrease of 2,760,000 barrels in stocks of domestic crude and an increase of 591,000 barrels in stock of foreign crude.





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PCI Petroleum Chemicals, Inc.
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Wyandotte's PLURONIC® polyols are 100% active in all forms . . . liquid, paste, flake, and cast solid. Altogether, 22 grades in the series are available in commercial quantities. A few of their many important uses: low-foaming laundry detergents, rinse aids, petroleum demulsifying, pharmaceuticals, paint pigment dispersants.

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MICHIGAN ALKALI DIVISION

Wyandotte Chemicals Corporation, Wyandotte, Michigan • *Offices in principal cities*

OPD Quickest way to keep current on Chemical Costs

Trade Name Chemicals & Specialties

Dow Corning Corporation announced a 28 percent price reduction for the company's silicone resin intermediate, **"Z-6018."** The reduction establishes the price of this material at $1.60 per pound in 20-drum lots. Introduced in 1957, the material is recommended for use by protective coatings manufacturers. Since "Z-6018" reacts readily with most organic resins and monomers, it enables paint chemists to tailor coatings that exactly meet the requirements of a specific application, the company reports. Decorative finishes for service up to 400 degrees F. and maintenance coatings for use up to 800 degrees F. can be formulated with this material, Dow Corning points out. In all cases the silicone-organic combinations have good resistance to moisture and weathering.

Hostachem Corporation reported a reduction of approximately 10 cents per pound in the price of **"Hostalit-Z,"** an impact-resistant polyvinyl chloride, manufactured by Farbwerke Hoechst AG., Frankfurt-Hoechst, West Germany. The reduction brings the price down to 40 cents to 50 cents a pound. The material is reported useful for cable and wire coating, plastic tubings and pipes.

Rohm & Haas announced a 15 cent reduction in the price of **"Pectinol 59-L"** in 40-lb. pail and smaller quantities. Price is $5.10 a pound in 40-lb. pail and $5.35 in less quantities. A 200-lb. drum lists at $5 per pound. Prices are f.o.b. Bristol, Pa. R&H also supplies this enzyme product in 40-lb. pail quantities from a Fresno, California, warehouse. Price from this shipping point is $5.35 per pound, f.o.b. Fresno. In addition the surcharge on pail shipments from Fresno has been reduced from 50 cents to 25 cents a pound. The company also announced commercial availability of **"Rhozyme CL,"** formerly designated as lipase C. Effective June 1, the price of **"Rhozyme CL"** in 150-lb. drums will be $1 per pound; 25-lb. drums, $1.10 and smaller lots, $1.35 per pound. Prices are f.o.b. Bristol, Pa.

WHAT'S REPORTED ON HERE

Though coverage in the Trade Name Chemicals & Specialties market report encompasses twenty classes of chemicals, only a few of them are mentioned in this issue. Here's the entire list:

Adhesives, antibacterials and fungicides, antifoaming agents, antioxidants, antistatic agents, blowing agents, catalysts and accelerators, chelating agents, chemically processed oils, emulsions and latexes, enzymes, fatty acid derivatives, feed supplements, filtering materials, ion exchange resins, surfactants, synthetic waxes, textile chemicals, thickening and suspending agents, and ultraviolet absorbers.

If you have suggestions for any additional materials that might be included in this section, write OIL, PAINT AND DRUG REPORTER'S Technical Editor, 30 Church street, New York 7.

Antioxidants

Antioxidants of the hindered phenol type are believed to act as inhibitors by interrupting the chain mechanism of free radical oxidation. This action prevents formation of harmful acid and polymeric oxidation products in industrial lubricants which often require protection at high temperatures and over long periods of time. The value of the additive in such products as greases, and transformer turbine oils, is that it is chemically inert with the exception of the oxidation reaction which is responsible for its antioxidant properties. The chemical is believed to be preferentially oxidized while preventing chain oxidation of the lubricant itself.

In the rubber industry antioxidants have been used for many years in natural and synthetic rubber at concentrations averaging about 1 percent. In car and truck tires the antioxidant helps to give increased flexing resistance to the tread and increases tire performance. This is demonstrated by lower plastic flow characteristics and lower heat buildup after oxygen aging.

Naugatuck Chemical markets an extended line of antioxidants for rubber products ranging from car and truck tires to fabrics and rubber products which come in contact with lacquer. **"Aminox"** is a reaction product of diphenylamine and acetone and is used as an antioxidant in tires, footwear and inner tubes. **"Naugawhite,"** an alkylated phenol, is used for treating carcass of whitewall tires as well as nonstaining, nondiscoloring stocks.

American Cyanamid's **"Antioxidant 2246"** is a general purpose antioxidant of the hindered phenol type which finds use in paraffin wax, petroleum products and some fats and oils. It is a nonstaning antioxidant for rubber. In the rubber industry, need has developed for antioxidants of high activity which will not stain or discolor light colored rubber products during normal life or on exposure to sunlight. Cyanamid points out that even black goods must frequently be compounded with nonstaning antioxidant in order to prevent transfer or migration staining.

Chemically Processed Oils

The production of tall oil fatty acids has grown from 5 million pounds ten years ago to an estimated 150 million pounds last year, according to statistics supplied by the Tall Oil Products Division of Pulp Chemicals Association. At the close of 1959 there were 9 companies operating 11 fractionating plants with a total capacity for fractionating tall oil in excess of 700 million pounds. Expanded capacity in 1960-61 is expected to raise this to 1 billion pounds.

Fractionation of tall oil produces a series of products which includes tall oil fatty acids. However, fractionation is equally important as a source of rosin and it is believed that fractionation capacity will keep pace with the supply of crude tall oil in order to make available tall oil rosin as a replacement for a diminishing supply of wood and gum rosin.

The tall oil fatty acids, which may range from 90 percent to 99 percent fatty acid content with the balance as rosin acids or unsaponifiable material, consists of a mixture of linoleic, oleic and saturated acids. The latter are mainly palmitic.

Commercially, the two most important uses of tall oil fatty acids are in soap manufacture and protective coatings. They perform similarly to oleic acid when used in the production of liquid soap products and the low foaming characteristics of tall oil soaps and detergents have been advantageous in the production of washing machine compounds. In addition, use of high rosin content tal oil products in disinfectants enhances the phenol coefficient of these products.

In alkyd resins tall oil fatty acids have found increasing use because of low cost, ready availability and high quality. Although tall oil alkyds are normally slower drying than soya alkyds, the development of polyhydroxy materials of higher molecular weight has largely overcome this difficulty. The absence of significant amounts of linoleic acid in tall oil has made possible the production of baking enamels with superior color retention characteristics.

Emery Industries, Inc., offers a wide line of tall oil derived products, tradenamed **Emtall,"** from an 80 million pound a year crude tall oil plant located at Nitro, West Virginia. The unit is operated as a joint project with Monsanto Chemical Company.

Enzymes

Total sales of industrial enzymes this year are expected to run to about $26.5 million, approximately $22 million of which will be made to pharmaceutical, brewing and textile industries. Meat packing and tenderizing use is expected to amount to about $750,000.

Recently, Swift & Co., reported that it is planning to experiment with the use of papain for injection into cattle before slaughter in an attempt to tenderize meat on the hoof. Meat packing plants have done work in the past on tenderizing of carcasses. In this method, the animal's vascular system is pumped full of the emzyme. However, the method is not altogether successful since the vascular

—Continued on page 68

BRILL FOR VALUES

SPECIALS

6—1200 gal. 304 S.S. Tanks, 6' x 6'6".

1—4000 gal. 316 S.S. clad agitated Reactor with coils.

1—Louisville 6' x 45', 316 S.S. Rotary Steam Tube Dryer.

2—Buflovak 42" x 120", atmospheric double drum Dryers, complete.

1—Stokes 21K, 304 S.S. Granulating Mixer.

1—75 Gal. 316 S.S. Jktd., Agtd. Reactor.

CENTRIFUGES

2—Baker Perkins 36 HS TerMeer, continuous.
1—Sharples C-27 Super-D-Hydrator, 316 S.S.
1—Bird 18" x 28", 316 S.S. Solid Bowl, Continuous.
1—Bird 36" x 50", 347 S.S. Solid Bowl, Continuous.
1—Sharples PY14, Super-D-Canters, 316 S.S.
1—Tolhurst 26" susp. Rubber Imperforate Basket.
2—AT&M 48" Suspended, 316 S.S. basket.
2—Sharples #16, 304 S.S., 3 Hp motor.

REACTORS — EVAPS — CONDS — TANKS

1—Condenser Service 650 gal. 304 S.S. closed Kettle, 5' x 4', with 100 sq. ft. bayonet heater.
1—1400 gal. Blaw-Knox, steel, jacketed, agitated Reactor.
1—2000 gal. Struthers Wells 316 S.S., jacketed, agtd. Reactor.
2—3200 gal. 316 & 347 S.S., jacketed, agitated Kettles.
1—550 sq. ft. Buflovak monel single effect Evaporator.
1—7500 gal. 316 S.S. Vert. Storage Tank, 7' x 25', 50 psi.
1—750 gal. nickel clad Mixing Tank, 125# nickel coils.
1—4000 gal. Haveg Vert. Tank 8' x 12'.
1—1500 gal. Stainless Pressure Tank, 5' x 10', 90#.
1—12,000 gal. horiz. steel Pressure Tank, 7'6" x 36', 200 psi.
6—Stainless Heat Exchangers: 1220, 786, 536, 370, 315, 250 sq. ft.
1—24" dia. x 35', 304 S.S. Bubble Cap Column.

FILTERS

1—Oliver 6' dia. Horizontal Filter, 216 S.S.
1—Oliver 3' x 6' Steel Rotary Vacuum Precoat Filter.
1—Oliver 5'3" x 6' Rotary Vacuum Precoat Filter, 316 S.S.
1—U. S. 200 sq. ft. 304 S.S. Auto-jet Filter.
1—Industrial 210 sq. ft., 304 S.S. Horizontal Filter.
1—Oliver 5'3" x 8' Steel Rotary Vacuum, vaportite housing.
1—Feinc 5' x 6' Stainless Steel Rotary Vacuum Filter.
2—#10 Sweetland Filters, 27 leaves, 4" centers, 250 sq. ft.

DRYERS

1—Buflovak Vacuum Shelf with 20—60" x 80" shelves.
1—Devine Vacuum Shelf with 19—59" x 78" shelves.
1—Devine Vacuum Shelf with 10—40" x 43" shelves.
2—Devine 4' x 9', single drum, atmospheric.
1—Buflovak 3' x 10' Rotary Vacuum Dryer.
1—Baker Perkins 5'6" x 6' Rotary Vacuum Dryer.
2—Louisville Rotary Steam Tube 6' x 25', 6' x 50'.
9—Rotary Dryers, 34" x 30', 4' x 40', 6' x 50', 6' x 60', 7' x 80', 8' x 87'.
2—Louisville 8' x 50' Stainless steel lined Rotary Dryers.
1—Traylor 30" x 18' Stainless steel Rotary Dryer.
2—Link Belt, 7'5" x 25', 6'4" x 24', S.S. Louvre Dryers.
2—Atmos. Tray Dryers, 16 shelves, 40" x 24".

MIXERS

1—Baker Perkins 100 gal., jacketed, double arm, 30 HP.
1—Baker Perkins #16TRM, 150 gal. jktd., Vac. 60 HP.
1—Baker Perkins 50 gal. jacketed, double arm.
5—Day "Cincinnatus" double arm, 250 and 100 gal.
2—Steel jacketed Powder Mixers, 225 and 350 cu. ft.
1—3' dia. Simpson Intensive Mixer.

MISCELLANEOUS

1—ISH Mikro Pulverizer, 3 HP.
1—Raymond 10' dia. Single Whizzer Separator.
1—#5 Mikro Atomizer with motor and cyclone.
2—Bantam Mikro Pulverizers, S.S.
1—No. 1 Ball & Jewell Rotary Cutter.
3—Swenson Walker Continuous Crystallizers, 24" x 30' sections.
2—Robinson Sifters, 40" x 84", Stainless.
1—#24 Rotex Sifter, 20" x 64", Quadruple deck.
8—Stokes: DD2, DDS-2, T, "R", and "F" Tablet Presses.
4—Nash Vacuum Pumps: H6, TS7, #2.
25—Chlorimet, Durimet and Duriron Centrifugal Pumps, 1½" to 6".

Partial List of Values — Send for Complete Circular

TEXAS OFFICE: 4101 San Jacinto Street, Houston 4, Texas — Tel.: JAckson 6-1351

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35-61 JABEZ ST., NEWARK 5, N.J. Tel.: MArket 3-7420

LATEST ADDITIONS to the FINE FMC STOCK of PROCESSING EQUIPMENT

2 Monel Jacketed & Agitated Reactors, 2800 Gal. 6'8" x 13' with 175# ASME Jkt. & Int. Pressure.
14 Stainless Steel Pressure Tanks; 700 Gal. Coned.
Hi Pressure Forged Steel 250 Gal. Reactor; 40" x 72" Jacketed 150 PSI; Internal 250 PSI.
Readco Stainless Steel Jacketed Mixer; 15 Gal. 15 HP.
2 Lehmann Mixers or Amalgamators; Stainless Lined; Stainless Arms; 32" x 44" x 36"; 7½ HP Motor.
Struthers Wells Stainless Drum Dryers; 5' x 10'; 5' x 4'.
2 Roll Mill for Plastic or Rubber; 6" x 12"; Motorized.
3 Roll Hi Speed J. H. Day Water Cooled Paint Mill; 14" x 30".
Direct Fired Stainless Steel Still; 1000 Gal.; 64" x 72".
Sparkler Stainless Steel Filter; 560 sq. ft. surface.
Type 316 Stainless Box Filter; 2000 Gal. 265 sq. ft.
Devine Vacuum Chamber Dryers; 7 Shelf 23½" x 29".
Devine Dbl. Door Vac. Dryers No. 36; 20 shelves 86" x 78".

MILLS—GRINDERS—PULVERIZERS

Abbe Jacketed Steel Ball Mills, 42" x 36" with charge of balls.
International Porcelain Lined, Ball Mill 8' x 8'; 50 HP Motor.
Pattersen Jacketed Ball Mill, 54" x 42"; good for Vacuum.
Mikro Fulverizers; up to No. 4's. Mikro SS Atomizers Model 5 & 6.
Fitzpatrick Comminuting Mills, Stainless Steel; Models C, D, K.
Williams Hammer Mills to 16" x 48". Raymond Imp Mills; many models.
Williams Ring Roll Lab Mills, 3 Roll. 10" x 3"; complete.
American Ring Roll Crusher with 30" x 33" Throat 50 HP Motor.

FILTERS and FILTER PRESSES

Shriver and Sperry Filter Presses to 42 in Cast Iron, Stainless, Ni-Resist, Aluminum.
Oliver Continuous Rotary Panel Type Vacuum Filters; 8' x 8' and 8' x 10'.
Feinc String Type Rotary Vacuum Filters 6' x 6' & 8' x 10'; Stainless contacts.
Bird Young Rotary Vacuum Filter, 4' x 4'. Sweetland Pressure Filters No. 2 to 12.
Enzinger Vertical Stainless Pressure Filter; 18" x 26"; ASME; 24 sq. ft.
Stainless Nutsche Type Filter 6' dia. x 2'. Bowser Filter w/Pump; 2000 GPH; 69 sq. ft.
Enzinger Leaf Type Filter; 48" x 57" Tank with 15 leaves; 360 sq. ft. surface.

PLASTIC and RUBBER EQUIPMENT

F-B Late Style 2 Roll Rubber Mills, 14" x 30"; 16" x 42"; 18" x 42"; 22" x 60".
Three Roll Calender; 22" x 58" complete. Baker Perkins Hv. Duty Mixers to 300 gal.
Two Adamson Vulcanizers; 16' long.
Abbe Pebble Mills with Motors, Pebbles; 37" x 48"; 45" x 48"; 60" x 72"; 8' x 8'.
Truck Dryer; 11' x 15' x 30'; 7' x 12' x 100'.
Automatic Mechanical Dryer; 160' long.
Southwark Hydraulic Presses; 36" x 36".
Dunning & Boschert Hydraulic Presses; 36" x 36".
French Oil Mill Presses; 28" x 30".
Stokes Aut. Molding Press No. 252; 300 ton.
Extruders: Royle No. 1; Allen No. 2; NRM 1½".
Kux, Stokes & Colton Tablet Presses.

FEATURE!
F-B Unused Rubber or Plastic Mills, 14" x 30" with Uni-Drives at ¼th the New Price.

DRYERS

Stokes Rotary Jktd. Dryer; 18' x 18'.
Stainless Lined Rotary Dryer; 50" x 20".
B & S Dbl. Drum Dryer; 28" x 60".
Buflovak Dbl. Drum Dryer; 40" x 120".
Zaremba INCONEL Dbl. Effect Evaporator.
Swenson Multi Effect Long Tube, Film Type.

CENTRIFUGES

Sharples H2 Nozzlejector; 15 HP.
Sharples Monel Model M4 P Centrifuge.
DeLaval Type 316 S/S Hermetic Separator.
Fletcher 12" and 30" S/S Centrifugals.
Rubber Covered Centrifugals; all sizes.

REACTORS and PRESSURE VESSELS

Mojonnier S/S Vac. Pans; 3' x 10'; 6' x 12'.
Nickel Clad Reactor; 7' x 11'6"; Jkt. Agt.
Struthers Wells Type 316 S/S; 1000-2000 gal.
Pfaudler Gl-Lnd; Jktd. Agtd. to 1000 gals.
Lancaster S/S Lined Rotary Jacketed Reactor; 50" dia. x 17'14" long.
Three Stage Continuous Agitated Reactor, 3 Vessels 4' x 20' in tandem.
Dopp 650 gal. C. I. Jktd. Agtd. Reactor.
250 gal. Hi-Pressure Forged Steel Reactor, Jacketed and Agitated; 40" x 72".

SPOTLIGHT SPECIALS

6 J. H. Day Pony Mxers 40 Gal. with Extra Cans; Motorized.
2 J. H. Day High Speed Water Cooled 3 Roll Mills; 14" x 30".
Stainless Steel Patterson Kelley Twin Shell Blenders 30-150 cu. ft.
2 Horizontal Type "C" Versators in 316 Stainless; 20 HP.
2 Double Chamber Stokes Impregnaters Models 5648-5748.
Pfaudler Glass Lined Thimble Condenser; 26 sq. ft.

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FELDSPAR PLANT

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15—Abbe Eng. #1B 6′ x 8′ pebble mills, 30 HP motor.
2—Hardinge 7′ x 36″ conical pebble mills.
1—Allis Chalmers 6′ x 18′ pebble mill.
1—Symons 3′ shorthead cone crusher, 50 HP.
1—Buchanan 13″ x 24″ jaw crusher, 50 HP.
3—Bucket elevators, up to 50′ high.

PHONE — WIRE — WRITE

1—Devine vac. shelf dryer, 227 sq. ft., lithcote.
2—Buflovak Vac. shelf dryers; 110, 98 sq. ft.
1—Devine Vac. Shelf Dryer, 80 sq. ft., UNUSED.
1—York Freon 12 comp., 6 3/4 x 5, 40 HP, 1953.
1—Gardner-Denver air comp., 445 cfm at 100#.
1—1960 sq. ft. horiz. heat exchanger, T316 SS, ASME.
1—Tolhurst 48″ susp. centrifugal, T304 SS perf. basket.
3—Sharples #C-27 Super-D-Hydrators, T316 SS.
2—Sharples #C-20 Super-D-Hydrators, T316 SS.
5—A.T.&M. 40″ T304 SS Susp. centrifugals, 40 HP.
17—Sharples AS-16V centrifugals, Inconel, vaportite.
3—Sharples #16-NF cent., Non-foam, T304 SS.
1—Sturtevant #9 rot. blender, 150 cu. ft., UNUSED.
1—Sprout-Waldron 335 cu. ft. ribbon mixer, UNUSED.
2—4′ dia. spray dryers, T304 SS, pilot size, elec. heat.
1—Niagara #60-20 vert. filter, 57 sq. ft., T304 SS.
1—Niagara 54 sq. ft. vert. filter, T304 SS.
1—Alco 110 sq. ft. vertical leaf filter, T316 SS.
2—Oliver 5′3″ x 3′ rot. vac. filter, precoat, T316 SS.
1—Oliver 5′3″ x 8′ rotary Vacuum filter. Unused.
1—Eimco 18″ x 24″ rotary vac. filter, T304 SS.
60—T316 SS heat exchangers & condensers: 1960 sq. ft. down to 30 sq. ft.—All sizes.
1—Buflovak 42″ x 120″ dbl. drum dryer, ASME 100#.
1—Standard 3′ x 23′ rotary dryer, ¼″ welded shell.
3—2750 gal. T316 SS vert. pressure tanks, 75 sq. ft. coil.
1—2500 gal., T316 SS pressure tank, 70# WP.
1—17,650 gal. T316 SS horiz. pressure tank, int. coil.
60—Baker Perkins #17 200 gal. jkt. sigma mixers.
1—Baker Perkins #16, 150 gal. sigma, jkt. mixer.
2—Baker Perkins #15, 100 gal. sigma blade mixers.
2—96″ dia. Vulcan T316 SS bubble cap columns.
1—Graver 750 gal. T304 SS Kettle, ASME, 10 HP.
1—500 gal. T304 SS jkt. reactor, Agit., Vac.
1—Buflovak 5′ x 12′ Vac. Drum Dryer—UNUSED.

1—Baker Perkins #15-UUMM Disp. blade jkt. mixer, 100 HP, motorized tilt, compression cover, 100 gal. 2-speed, XP motor.

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Link Belt 502-16 Roto Louvre Dryer Oil Fired Furnace, Disch. Hood, and Drive.

Proctor & Schwartz Apron Conveyor Dryer 20 Unit, 10′-2 Tier Stainless Steel.

3 Roll #3036 High Side Raymond Mill Double Whizzer, Exhauster, Piping.

1000 sq. ft. Stainless Steel Condensers with 370-¾″x14′x16 ga. 304 S.S. Tubes.

Buflovac Vacuum Shelf Dryers, 18 Shelves, Condensers, Receivers, and Vacuum Pumps.

Louisville 8′x80′x½″ S.S. clad Rotary Dryer with Furnace, Blower, Cyclone.

4500 gal., 9′x9′x¼″, Closed, Monel Tank.
6500, 3000, 1500 gal. Haveg Tanks.
100, 200, 300 gal. S.S. Tanks.

C27 & C20 Sharples Super-D-Hydrator Vaportite 316 Stainless XP Motors.

Filter 30″x30″ P&F 36 C.I. Chambers.

30 gal. 316 S.S. Autoclave 1000 PSI Int., 319 PSI Jkt., 1½ HP Agitator.

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SPECIAL

SPROUT-WALDRON 10,000# HORIZ. SPIRAL MIXER

CENTRIFUGALS—12″, 30″, 40″ & 48″.
CENTRIFUGES—Sharples #5 & 6 S.S.
DRYERS—Hersey 5′ x 26′ Rotary Stainless Lydon elec. heated Dryer, fray type.
Buffalo Vac. Drum Dryer 24″ x 20″
Dispatch Ovens Elec Heated
Devine 8 shelf Vac. Dryer 40″ x 42″.
2—Hope S.S. Can Fillers pints to gals.
FILLERS—Powder & Liquid. Also Labelers.
FILTERS—Vallez type 49, with 41 Stainless covered leaves.
#2 Sweetland 12 Stainless covered leaves.
Ertel 6″ & 10″ Disc type.
FILTER PRESSES—6″ to 36″ Iron & Wood.
KETTLES—Stainless Jack. 20 to 500 gals.
Dopp 350 gal. Cast Iron Jack. Vacuum.
Devine Impreg. Units 30″ & 36″ dia.
Steel, Alum & Copper 5 to 2,000 gals.
MILLS—Raymond #00 Pulverizer 30 HP complete. Also #0000
Mikro Pulverizer #4, 2S1, 2TH, 1SH,
Hammer Mills & Pulverizers 3 to 50 HP.
Williams #BB, #3 & #2XX Hammer Mills.
Rotary Cutters 1 HP & up.
Spr. Wald. Stainless Spike Crusher.
Pebble, Jar & Ball Mills, Lab. to 6′ x 8′.
3 Roll, 9″ x 32″, 12″ x 30″, 16″ x 40″
Lehmann 4 Roll W C 12″ x 36″ Steel
MIXERS—Baker Perkins 100 gal. Jack.
Day Imperial 75 & 150 gal.
Change Can Mixers 8, 15 & 40.
Day Jumbo 700 gal. horiz. Mixer.
Blystone 3000# horiz. spiral Mixer
Day 1000# horiz. Dry ribbon Mixer.
Dry Spiral Mixers 50 to 3000#.
Lancaster 6′ dia 25 HP & #1, 3 HP.
PUMPS—Vacuum 10 to 500 CFM.
Gould 75 HP Centrifugal 250 PSI.
SIFTERS—Day, Robinson Rotex type.
SOAP MACHINERY—Toilet, Laundry, etc.
TABLET MACHINES—Stokes Rotary RD3, Colton 4½T & 2B single punch.
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4—Werner & Pfleiderer 200 gal. jktd., sigma blade Shredders.
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1—Jeffrey Vibrating Conveyor.
1—30″ Sperry Filter closed del., 3-eye, 39-plates, 40-frames.
1—42″ Sperry Filter 40-plates, 41-frames, hyd. closing, open del.
9—Blackburn Smith Pressure Leaf Filters with S.S. Leaves.
1—International Ball Mill, porcelain lined, 48″ x 60″, 15 H.P. Unibrake Motor, 2-drums balls. Like new.
1—Schutz-O'Neill Pulverizer 22″, Style D.
1—Abbe Pebble Mill 5′ x 22′.
1—Sparkler Filter 33-S-28, with Scavenger Plate, steam jacketed.
1—2 qt. Sigma Blade S.S. Mixer.
1—250 gal. Kettle, nickel jacket, 100#.
1—Bartlett Hog Mill with 7½ H.P. motor.
1—430 S.S. Tank 3000 gal. vert. ⅜ plate, with 2 pc. cover.
2—Vacuum Pumps, Gardner-Denver, 5″ bore 4″ stroke, with 7-½ H.P. motors.
1—#316 S.S. Reactor 265 gal. jkt.
2—Twin Screw Mixers 120 gal. jkt.
2—Aetna Water Stills 20 gph, new.

Large stock of new and used H.P. Boilers, Tanks, Pumps, Heat Exchangers, Freon Compressors, Stainless Steel & Brass Valves. Advise us as to your requirements.

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16—1020 Gals. Baker-Perkins Jacketed Sexagonal Blending Mixers with 5 H.P. Explosion proof Gearmotor Drives. Magnetic Brakes Teflon Lined.

4—1500 Gals. Jacketed Agitated Tanks, all-steel, Motoreducer drives, atmospheric internal pressure, 75# Jacket pressure, ASME—U69 Code.

1—46″ dia. X 34′ long Accumulator Tank ASME—1300# press.

1—400 Gals. Struthers-Wells Reactor, all Stainless, Jacketed, with 7-½ H.P. Motoreducer Drive.

Also—Stainless Denver Thickener Stainless Doar Oliver Filter, 375 Sq. Ft. Stainless Heat Exchanger, Small Stainless Columns, Solas Gas Furnace and many other items.

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1—Allis Chalmers 6′x50′ Stainless Lined Rot. Dryer. W/Mtr. Fan.
2—6′x35′ Rotary Flame Dryers. ½″ Shell. Comp/equipped.
1—66″x36′ Rot. Monel Lined Flame Dryer. With Firebox.
1—6″x12″ Lab. 2 Roll Rubber Mill. 5 HP Mtr & Drive.
2—French type S-2 Expellers. 30 HP. w/tempering Bins.
1—Day Cincinnatus 100 gal work. cap Sigma Blade Mixer. Size 6.
3—Eimco 8′x12′ Rot. Cont. Vacuum Filter. Closed steel drums.
1—Falk 50 HP Vert. Agit. Drive. 125 RPM. Louis Allis Mtr.

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ME MACHINERY AND EQUIPMENT COMPANY
123 Townsend St. San Francisco 7, California

EQUIPMENT
for CHEMICAL AND ALLIED INDUSTRIES

2—Monel jacketed autoclaves, 2500 gal. each, 175 psi jacket, 175 psi internal, ASME constructed.

1—Pfaudler Series R78 2000 gal. jacketed glass lined reactor, completed with impeller type agitator and drive, 125# jacket, 50# internal.

1—Pfaudler Series ELL 300 gal. glass lined jacketed reactor, complete with anchor type agitator and drive.

3—Pfaudler Series EM 200 gal. glass lined jacketed reactor, complete with anchor type agitator and drive.

1—Pfaudler Series ES 100 gal. glass lined jacketed reactor, complete with anchor type agitator and drive.

3—Struthers Wells type 316 SS 2000 gal. jacketed reactors, complete with agitators and drives.

1—Struthers Wells type 347 SS 400 gal. pressure vessel with coils, turbine type agitator and drive

1—Allis Chalmers SS rotary dryer, 6' x 50', complete with drive, motor, fans and blowers.

1—Pfaudler Model XL 1000 gal. glass lined jacketed reactor, complete with anchor type agitator and drive.

2—Louisville SS rotary dryers, 8' x 50', complete with drives, motors, fans, blowers, etc.

1—Rotary dryer, 7' x 60', 2 tires, ½" shell, complete with drive, motor, blowers and all auxiliary equipment.

1—Rotary dryer 6' x 50', 2 tires, ½" shell, complete with drive, motor, blowers and all auxiliary equipment.

1—Rotary dryer 6' x 35', 2 tires, ½" shell, complete with drive, motor, blowers and all auxiliary equipment.

4—Davis Engineering Carpenter 20 heat exchangers, 120 sq. ft. each. (NEW)

1—Buflovak SS jacketed rotary vacuum dryer, 3' x 15'.

4—Steel jacketed rotary vacuum dryers, 3' x 15', 5' x 20, 5' x 30', 5' x 35'.

1—Fletcher SS 48" whirlwind centrifuge complete with perforate basket and motor.

1—18,000 gal. type 316 SS pressure tank, 11' x 24'.

1—Buflovak SS jacketed rotary vacuum dryer, 2' x 4'.

1—Shriver aluminum 30" P&F filter press, 30 chambers.

2—Sturtevant #7 dustite rotary batch blenders, NEW.

20—Stainless steel condensers 6 to 750 sq. ft.

1—Ross 6" x 14", 3 roll paint mill.

1—18,000 gal. aluminum storage tank.

1—Niagara SS filter, Model 510-28.

1—Oliver SS rotary pressure precoat filter, 5'3" x 8'.

1—AT&M 48" SS suspended type centrifuge, complete with plow motor and imperforate basket.

4—Tolhurst 40" center slung rubber covered centrifuges with perforate baskets and motors.

2—Fletcher 40" center slung rubber covered centrifuges with perforate baskets and motors.

1—Banbury #1 mixer, chrome plate rotors, with 50 HP motors.

1—Condenser Service type 316 SS heat exchanger, 350 sq. ft.

1—Fletcher 48" center slung SS centrifuge complete with perforate basket and motor.

R. GELB & SONS, INC.
UNION, NEW JERSEY Est. 1886 MUrdock 6-4900

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Mix-Muller: Simpson Porte 39½" st. st.
Filters: Stokes & Smith EG-1, st. st.
Centrifugal: Tolhurst 20" type 316 st. st.
Centrifugal: AT&M 60" st. st. perf.

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2—Devine vacuum shelf dryers 40" x 43", 17 shelves, 10 shelves.

1—33 cu. ft. stainless steel ribbon blender.

1—400 gallon stainless steel jacketed and agitated reactor.

1—Pfaudler model R 500 gallon glass lined jacketed and agitated reactor.

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PARKING ON PREMISES **Phone: STerling 8-4672**

Trade Name Chemicals

—Continued from page 62

system tends to coliapse after slaughter. In the current process, papain in solution is injected into the animal's jugular vein about ten minutes before slaughter.

Rohm & Haas manufactures **"Pectinol"** enzymes which are used to increase the yield of fruit juice and give juice the clarity consumers desire. The pectin, present in all fruits and berries, forms viscous water solutions and acts as a protective colloid in suspending insoluble material in fruit juices. Addition of **"Pectinol"** hydrolyzes the pectin and the insoluble particles settle readily, the juice clears and problems of filtering are markedly reduced. The company also markets **"Rhozyme P-11"** which finds use as a meat tenderizer. R&H reports that producers of specialty food items have packaged this enzyme product in aerosol dispensers and that it has shown unusually long shelf life.

The company has made **"Rhozyme CL"** (formerly lipase C) available in commercial quantity. The product is a mold bran enzyme and is supplied as a dry powder. The material has an enzyme system similar to lipase enzymes which are characterized by their catalytic action in hydrolysis of fatty materials. Applications are indicated wherever it is desired to remove fats or produce, in a controlled manner, di- or monoglycerides or free fatty acids, the company reports.

Mellon's Helm to Mellon As Gen. Ridgway Retires

Gen. Matthew B. Ridgway has retired as chairman and chief executive officer of Mellon Institute, Pittsburgh, Pa. Paul Mellon has been elected chairman succeeding Gen. Ridgway, who has been reelected a trustee and who will serve as a consultant to the institute.

Jonathan S. Raymond was elected assistant to the chairman of the institute.

Fertilizer in 1975

—Continued from page 4

tion and distributor-demonstration programs, TVA reports it has begun introducing diammonium phosphate and ammonium phosphate nitrate to large numbers of fertilizer makers, dealers and farmers.

Other TVA promotions in the phosphate field include dissemination of a new process for producing fertilizers by acidulation of leached zone aluminum phosphate ore from the Florida fields.

"If the TVA process demonstrates the economic and agronomic feasibility of leached zone phosphate for fertilizer," the agency's publication says, "this project could lead to a conservation of the dwindling supply of phosphates in the fields close to the traditional fertilizer use area."

For potash, the principal trend spotted by TVA is the continuing rapid increase in domestic production contrasted to relatively smaller imports. As to Canada's debut as a supplier to the US market, TVA feels that "the US will never again be wholly dependent upon any foreign source of supply."

Sulfuric Plant Makes Bow

—Continued from page 5

the natural advantages of water shipments by barge, as well as standard shipments by rail or truck.

A new barge, especially designed to carry sulfuric acid on the inland waterway, is already making deliveries.

Announcement of the new plant going on stream came from the subsidiary's president, W. K. Menke.

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MIAMI (FRanklin 9-2666)—John Printup & Associates, Langford Building, Miami 32, Fla.
DALLAS (DAvis 1-6896)—John Printup & Associates, 2607 Millmar Drive, Dallas 28, Tex.
LOS ANGELES (DUnkirk 7-4368)—Robert W. Walker Company, 730 South Western Avenue, Los Angeles 5, Calif.
SAN FRANCISCO (SUtter 1-5568)—Robert W. Walker Company, 57 Post Street, San Francisco

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POLYGLYOXAL—80 dms, D F Jonas, Marseille
POLYVINYL ALCOHOL—1,900 bgs, Marubeni Iida Co, Kobe
POLYVINYL ETHYL ETHER—5 dms, M W Hardy & Co, Kobe
POPPYSEED—150 bgs, Louis Furth, Rotterdam
150 bgs, Vande Vries Trading Co, Rotterdam
150 bgs, R J Spitz, Rotterdam
200 bgs, Wagner Bros, Izmir
100 bgs, Rotterdam
POTASH, MURIATE—2,730 tons, Potash Import & Chemical Corp, Bremen
POTASH, SULFATE—280 tons, Potash Import & Chemical Corp, Bremen
POTASSIUM FERROCYANIDE—344 bgs, Filo Color & Chemical Corp, Rotterdam
POTATO STARCH—480 bgs, Stein Hall & Co, Rotterdam
PROPYLTHIOURACIL—1 cs, Lo Curto & Funk, Hamburg
QUINCE SEED—106 bgs, Khorramshahr
11 bgs, Khorramshahr
QUINIDINE SULFATE—20 dms, Lo Curto & Funk, Hamburg
QUININE SULFATE—22 dms, Lo Curto & Funk, Hamburg
SHELLAC—94 bgs, F H Paul & Stein Bros, Hamburg
272 bgs, I Levine, Hamburg
100 bgs, Colony Import & Export Corp, Calcutta
150 bgs, Gillespie Rogers Pyatt, Calcutta
50 bgs, Max Van Pels, Calcutta
300 bgs, H C Smith, Calcutta
950 bgs, Calcutta
SODA, CAUSTIC—130 dms, B T Chemco Inc, Gothenburg
SODIUM ALGINATE—10 dms, T M Duche & Sons, Bremen
10 dms, Olympic Shipping Co, Bremen
16 dms, E Mendell & Co, Havre
SODIUM AZIDE—35 bbls, Lo Curto & Funk, Bremen
SODIUM BICARBONATE—500 bgs, Chemical Manfacturing Co, Liverpool
SODIUM BROMATE—50 dms, Rotterdam
SODIUM CYANIDE—240 dms, Chemical Manufacturing Co, Liverpool
280 dms, American Cyanamid Co, Liverpool
SODIUM SALICYLATE—5 dms, E Seidelmann Corp, Hamburg
SODIUM SULFATE—557 bgs, Impex Overseas Corp, Rijeka
STARCH—800 bgs, Morningstar Paisley Inc, Rotterdam
STEARINE PITCH—228 dms, G S Ziegler & Co, Liverpool
STRYCHNINE SULFATE—3 cs, Havre
SULFADIAZINE—23 dms, American Cyanamid Co, Bombay
SULFUR, CRUDE—10,375 tons, Allied Chemical Corp, Coatzacoalcos
TALC—685 bgs, C B Chrystal Co, Bombay
1,143 bgs, Whittaker Clark & Daniels, Bombay
22,465 bgs, Charles Mathieu, Genoa
TAMARINDS—25 bbls, Murbas Trading Co, Port of Spain
100 bbls, S B Penick & Co, Bridgetown
200 cs, M T Co, Tuticorin
TANKAGE—315 bgs, Tupman Thurlow, Montevideo
630 bgs, Tupman Thurlow, Buenos Aires
TARTARIC ACID—200 bgs, Nylos Trading Co, Leghorn
THYROID POWDER—10 dms, Copenhagen
TITANIUM DIOXIDE, ANATASE—2,205 bgs, Marubeni Iida Co, Kobe
TOLU BALSAM—5 dms, S B Penick & Co, Puerto Barrios
TRICHLOROETHYLENE—100 dms, Chemical Manufacturing Co, Liverpool
609 tons, Chemical Manufacturing Co, Liverpool
200 dms, Venice
200 dms, Leghorn
195 dms, Gothenburg
UREA—1,000 bgs, Nylos Trading Co, Genoa
4,000 bgs, H J Baker & Bro, Antwerp
UREA, SYNTHETIC—700 bgs, Chemical Manufacturing Co, Liverpool
ZINC OXIDE—1,103 bgs, Smith Chemical & Color Co, Havre
480 bgs, Liverpool
ZINC WHITE—200 bgs, Antwerp

Philadelphia

ANTIMONY OXIDE—853 bgs, Glasgow
BONE—1,048 bgs, Baugh & Son, Buenos Aires
CALCIUM CARBONATE—480 bgs, Pluess Staufer, Antwerp
CASEIN—4,100 bgs, National Casein Co, Buenos Aires
POTASSIUM CYANIDE—200 dms, Ugine Industries, Havre
QUEBRACHO EXTRACT—1,338 bgs, Tanimex Corp, Buenos Aires
2,040 bgs, Barkey Importing Co, Buenos Aires
SODIUM CYANIDE—200 dms, Chemical Manufacturing Co, Glasgow
SODIUM SILICOFLUORIDE—600 bgs, Riches Nelson, Rotterdam

Obituaries

Leroi de Caisse

Leroi de Caisse, who retired in 1953 after thirty-five years as an OPD market editor, died May 15 at his home in Asheville, N.C. He was seventy-five years old. (Details on Mr. de Caisse's career will be found on the editorial page—page 34 of this issue.)

Marlin G. Geiger

Marlin G. Geiger, executive vice-president and director of W. R. Grace & Co., New York, died May 13 while returning in a chartered plane from a business trip to Baltimore, Md. He was sixty-two years old.

Mr. Geiger was in charge of the eight chemical divisions that make up the Grace chemical group.

He was associated with Westvaco Chlorine Products Corporation for the first twenty-six years of his career. Starting as a chemical engineer, Mr. Geiger was later made assistant manager and resident manager of the company's Charleston, W. Va., plant, and afterwards was named a vice-president and director.

From Westvaco, which is now a division of Food Machinery & Chemical Corporation, he went to Davison Chemical Corporation in 1947 as executive vice-president and a director. He was named president in 1953.

A year later, when Davison was merged with Grace, Mr. Geiger was named a vice-president and director of the parent firm. He was made executive vice-president in 1956.

At his death, Mr. Geiger was a director of the National Plant Food Institute and the Manufacturing Chemists' Association.

Jacques Suraud

Jacques Suraud, manager of European sales for Rayonier, Inc., New York, died May 13 in Paris, France after a long illness. He was fifty-four years old.

Mr. Suraud, a French national, was instrumental in establishing Rayonier's marketing position as a producer of chemical cellulose products.

Ammonium Sulfate Output Switch Called Ticket

—*Continued from page 3*

US," Mr. Edwards recalls, "which was not until the early 1920's, and this resulted in a sharp drop in the price of both anhydrous and ammonia liquor.

"As a result, coke plants recovering ammonia as liquor started to switch to production of sulfate, which offered a better return and outlet. Only a comparatively few plants continued to make ammonia liquor."

Now, declares Mr. Edwards, the wheel has come full circle and "it would be better if some cokeoven plants return to making liquor instead of sulfate, since the demand for liquor exceeds present supply."

Here's how the Nitrogen Products chief spells out the economics of such a switch:

If a cokeoven decided to recover its ammonia in the form of liquor, it would have about the same storage problem as producers of granular sulfate, since the principal use for both products is in the short-season top dressing market.

One ton of ammonia produces four tons of sulfate. A ton of sulfate (25 percent NH_3) sells for $32, or $128 for four tons. From this $128, $80 is subtracted, which is the approximate cost of the four tons of sulfuric acid required to make it.

Freight Equalization Costs

This leaves the cokeoven producer a maximum of only $8, before freight equalization, for a ton of ammonia in the form of sulfate. If $5 of freight, equalization is absorbed on each ton of sulfate, making $20 on the four tons, the return is reduced to just $28.

"I can assure you," members of the institute were told, "that your return per ton of ammonia in the form of 30 percent liquor would be considerably more, and that the potential market for liquor is large enough to consume present surplus cokeoven ammonia."

Additional advantages cited by Mr. Edwards are:

- Elimination of purchasing and using sulfuric acid.
- Production of a more concentrated nitrogen product than sulfate.
- Greater ease of handling a liquid over a solid, and the lower cost of storage in tanks.

An individual producer's decision would hinge on how his operation stacks up in relation to freight costs for shipping sulfate and whether he has surplus steam to produce liquor. Mr. Edwards has been unable to ascertain the cost of converting a sulfate plant to ammonia liquor.

Another way the industry can help itself, Mr. Edwards declares, is through establishment of a research fund to find better and lower-cost methods of recovering ammonia. In this connection he cites research done by Inland Steel Company, Chicago, showing how revisions in existing cokeovens could be made to recover ammonia as a 95 percent anhydrous product.

His suggestions for regeneration of the industry were presented against a backdrop of steadily constricting use in agricultural chemicals:

In 1929, sulfate began to be edged out of mixed fertilizers by lower cost nitrogen in the form of ammoniating solutions, which were constantly being improved to replace more and more sulfate. Improved technological processes of the fertilizer industry itself resulted in still more ammonium sulfate being elbowed aside.

World War II Halts Trend

Only during World War II was the trend temporarily halted, and then only because all forms of nitrogen were in short supply.

The material's eclipse is a matter of pure economics, Mr. Edwards explains:

One ton of a 5-10-10 fertilizer mixture contains 100 pounds of nitrogen. If this nitrogen were obtained from sulfate, it would require 500 pounds of sulfate.

Now all of the nitrogen can be obtained from ammoniating solutions. Since 1.5 million tons of 5-10-10 are used a year, ammoniating solutions have replaced almost 375,000 tons of sulfate in this single grade of mixed fertilizer.

Describing the present situation as "somewhat critical," Mr. Edwards leaves the impression that the industry had better not let the grass grow under its oversupply.

Goodyear's New Synthetics

—*Continued from page 5*

tires, capable of withstanding landings of over 250 miles per hour.

In addition to helping meet Goodyear's need for additional types of rubber, the new Texas facility will produce synthetic rubber for sale to others.

(For some time, a sizeable percentage of the output of another Goodyear plant, this one at Houston, Tex., has been sold to outside firms. The Houston unit, located just ninety miles from the new site, produces "Plioflex," a styrene-butadiene type rubber, as distinguished from the two new types to be made in Beaumont.)

Goodyear's Beaumont plant will be located within several miles of a Mobil Oil Company refinery, from which Goodyear will obtain its principal raw materials. The initial installation will cover a relatively small portion of the site, leaving ample room for expansion of rubber production facilities and for other chemical activities in line with availability of other raw materials in the area.

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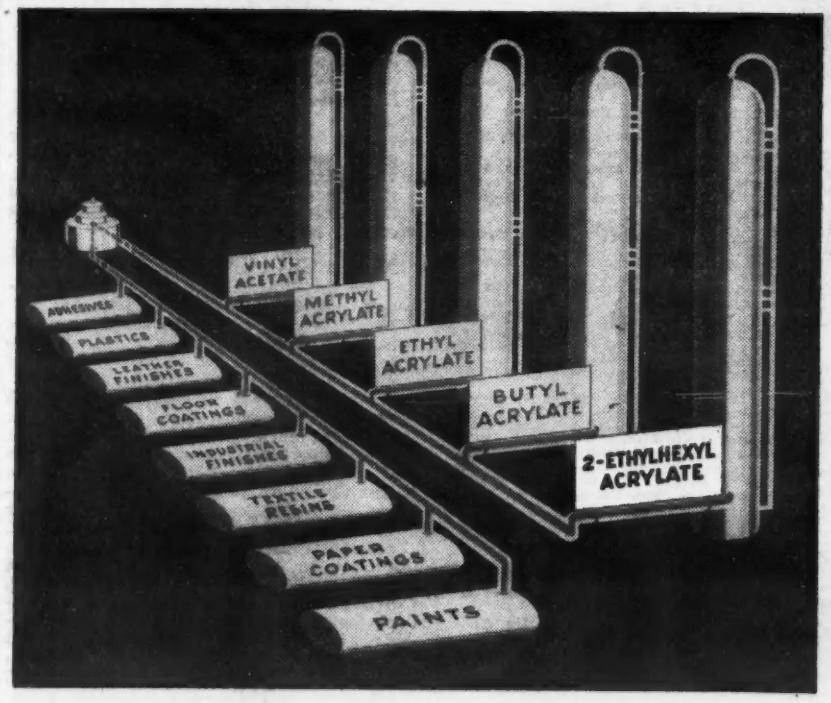

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